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LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

REPORT

OF THE

DIRECTOR-GENERAL OF PUBLIC HEALTH

NEW SOUTH WALES,

FOR THE YEAR 1935.

PRESENTED BY THE MINISTER FOR PUBLIC HEALTH
(THE HON. HERBERT PATON FITZSIMONS, M.L.A.)

Printed under No. 6 *Report from the Printing Committee,* 16 *December*, 1936.

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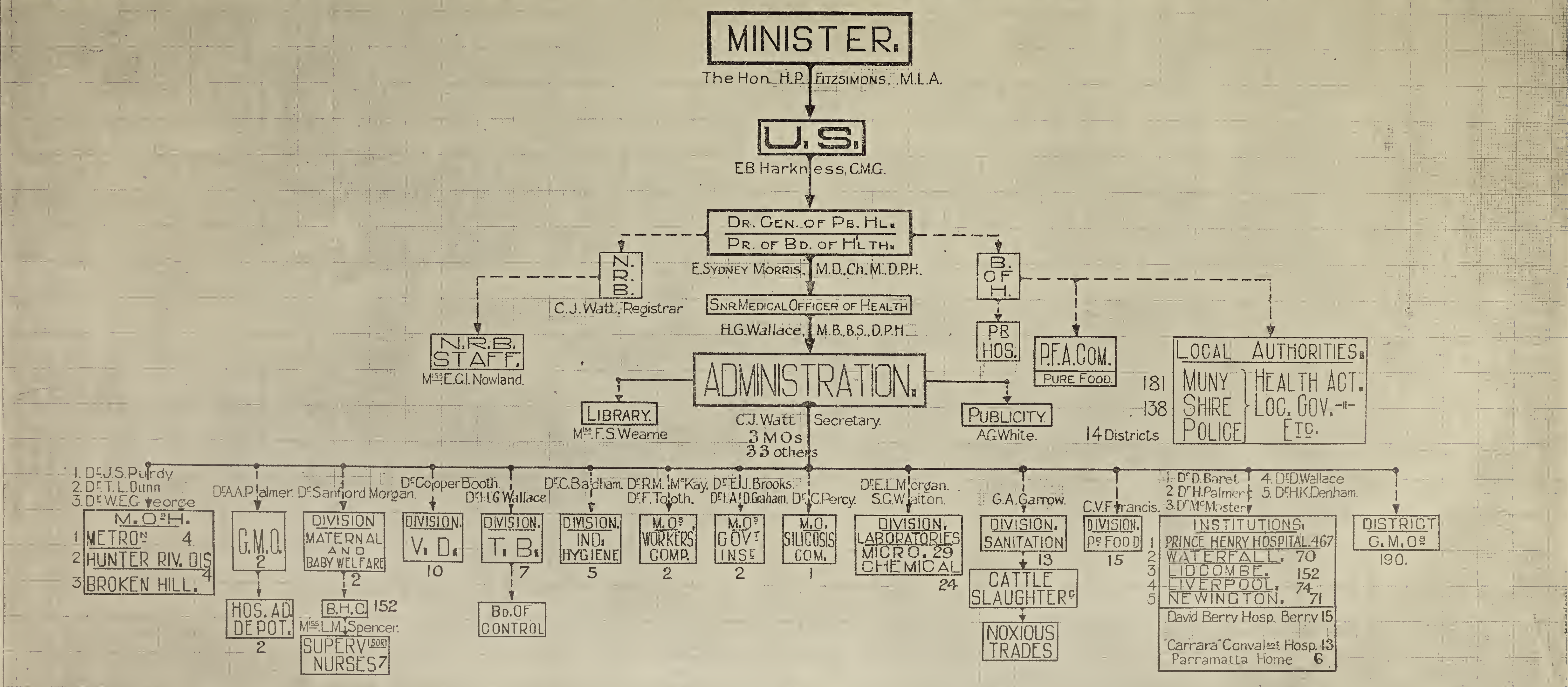
HEALTH DEPARTMENT.

OFFICE OF THE DIRECTOR GENERAL OF PUBLIC HEALTH.



Office of the Director-General of Public Health, 93 Macquarie-street and 52 Bridge-street, Sydney.

Members of the State Board of Health, 1935.

E. Sydney Morris, M.D., Ch.M., D.P.H. (President).		
Cecil Purser, M.B., Ch.M.	Member,	Board of Health.
R. M. Clark (President, Chamber of Commerce)	do	do
William George Armstrong, M.B., D.P.H.	do	do
The Hon. Frank Edgar Wall, M.D., M.L.C.	do	do
Robert Dick, M.B., Ch.M., D.P.H.	do	do
B. G. Littler, Esq.	do	do
Mrs. Euphemia Jean Maincke	do	do
Mrs. Emma Linda Palmer Littlejohn	do	do
Sir Alfred Parker (Lord Mayor of Sydney), died 18/10/1935 Alderman A. McElhone (Lord Mayor of Sydney), from 27th October, 1935.	do	do

Administrative Staff,

Director-General of Public Health and Commissioner for Venereal Diseases: E. Sydney Morris, M.D., Ch.M., D.P.H.

Senior Medical Officer of Health and Director of Tuberculosis: Hugh Gilmour Wallace, M.B., B.S., D.P.H.

Director of Maternal and Baby Welfare: Elma Sandford Morgan, M.B., Ch.M.

Assistant Medical Officer of Health: Bruce Robson Overend, M.B., Ch.M., D.P.H.

Secretary: Cecil James Watt.

Divisions and Branches.

The following Divisions are controlled by the Director-General of Public Health:—Maternal and Baby Welfare; Tuberculosis; Venereal Diseases; Industrial Hygiene; Government Medical Officers for Sydney; Medical Officers of Health, Metropolitan, Newcastle and Broken Hill Districts; Microbiological Laboratories, Sydney and Broken Hill; Chemical Laboratory; Pure Food; Cattle Slaughtering; Sanitation; Publicity, etc.

The Hospital Division comprises The Prince Henry (formerly Coast) Hospital, The David Berry Hospital, four State Hospitals and Homes, Waterfall Sanatorium (Tuberculosis), Strickland Convalescent Hospital, and the Leper Lazaret.

Legislative Enactments.

The Minister for Health is charged with the administration of the following Acts, execution of which is left to the Director-General of Public Health and the staff working under his control:—Cattle Slaughtering and Diseased Animals and Meat Acts, 1902–1932; Food Preservation by Sulphur Dioxide Enabling Act, 1920; Noxious Trades Act, 1902; Private Hospitals Act, 1908; Public Health Acts, 1902–1932; Pure Food Act, 1908; Wine Adulteration Act, 1902. Burials in closed cemeteries and the exhumation of bodies for the purpose of re-interment, etc., are also dealt with.

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Report of the Director-General of Public Health to the Honorable the Minister for Health (The Hon. H. P. FitzSimons, M.L.A.)

Sir,

I have the honour to present herewith the report on the work of this Department for the year 1935.

Removal to New Premises.—In May, 1935, it was found necessary to house the administrative staffs of the Department in rented premises at 52 Bridge-street, Sydney. For many years it had been difficult to satisfactorily fulfil the demands made upon a modern health department under the cramped and over-crowded conditions which existed in the building at 93 Macquarie-street, the Department's first permanent home, which had been sufficient to meet all needs when erected to house the Department in 1897.

The heavy expenditure that would have been incurred in moving the laboratories influenced the decision for removal of the administrative sections to 52 Bridge-street, and for concentration of the various clinics at 93 Macquarie-street, the upper floors of which are occupied by the Bacteriological and Chemical Laboratories.

It is understood that provision will be made in the future for housing the Department by the erection of a commodious building.

Vital Statistics for 1935 show a population of 2,657,666 at 31st December, and a mean population of 2,645,575. There were 44,676 births, and the rate was slightly higher—16·89 per 1,000 of population in 1935 compared with 16·52 per 1,000 in 1934. Deaths from all causes totalled 24,547, being a rate of 9·28 per 1,000 of population, and the highest rate recorded since 1929. This rate is 9·05 per cent. above the average of the previous five years, and has been ascribed to severe respiratory conditions during the winter months, when pneumonia (1,712 deaths), and influenza (578 deaths) were unusually prevalent. The averages of the deaths from these causes during the previous five-year period were respectively 1,544 and 286.

Deaths of infants under one year numbered 1,762, equivalent to a rate of 39·44 per 1,000 births for the whole State. The rate for the metropolis was 35·61 per 1,000 births. Of the total deaths, 1,394, or 79·11 per cent., occurred under three months.

Legislation.—No health legislation was passed in 1935, apart from some minor amendments of by-laws, regulations, and ordinances. A consolidated Public Health Bill has been drafted, and Bills amending the Pure Food Act, Private Hospitals Act, Venereal Diseases Act, and the Cattle Slaughtering and Diseased Animals and Meat Act have been submitted for presentation to Parliament.

DIVISION OF MATERNAL AND BABY WELFARE.

Infant Welfare Work.—Nine additional Baby Health Centres were opened in 1935 (at Adelong, Blackheath, Bulli, Goolgowi, Katoomba, Kyogle, Parkes, St. Mary's and West Wyalong), making a total of 140 centres in operation at the end of 1935. The Department tenders special thanks to the Country Women's Association and (in the case of Bulli) to the Bulli Shire Council for their assistance, without which these additional centres could not have been established.

Visits at Baby Health Centres by 53,003 individual babies numbered 615,502 in 1935; 6,359 expectant mothers received advice, and 25,440 new enrolments were made. These figures show a very considerable increase on the attendances for 1934.

It is gratifying to record that the deaths of infants under 1 year of age in 1935 was the lowest rate that has been recorded here, namely, 39·44 per 1,000 births for the whole State, and 35·61 for the metropolis, placing Sydney in the proud position of having probably one of the lowest infantile death rates in the world for a city of over a million inhabitants.

Of the 1,742 deaths under 1 year, 70 per cent. (1,240) were within the first month of life. Here, as in most other countries, this high neo-natal death-rate has remained stubbornly irreducible over a long period of years.

Maternal Welfare.—The work of the ten departmental pre-natal clinics continues to increase steadily, the attendances numbering 3,136 in 1935. The ante-natal clinics are held at Baby Health Centres, the nurses from which have special opportunities for coming into contact with expectant mothers, and many women are thus reached who would otherwise have no ante-natal care whatever. Difficulty is, however, still experienced in overcoming the reluctance on the part of the average woman to seek advice or to follow prescribed treatments.

A series of fatal puerperal cases in a country town were the subject of coronial inquiry. The cases were proved not to have been connected in any way, and not to have been due to an epidemic of puerperal infection.

Occurrence of puerperal infections with two fatalities in an excellently equipped metropolitan private hospital was investigated by the Department, and a haemolytic streptococcus was isolated from the throat of a member of the nursing staff.

Attention is drawn by the Director (Dr. Elma Sandford Morgan) in this the Ninth Annual Report of the Division, to some of the unconsidered outside influences which operate in maintaining a high maternal mortality rate, such, for instance, as the later incidence of marriage and the proportionately greater number of first births.

In 1935 accidents of pregnancy accounted for only about one-half as many deaths as in previous years. Notwithstanding this decrease, the death-rate in New South Wales from ectopic gestation (included in Accidents of Pregnancy) compares so unfavourably with the rates of other countries that special attention is drawn to it by the Director of the Division, who points out that it might be considered as a reflection on our standard of diagnosis and treatment.

Deaths from albuminuria and other toxaemias probably constitute the greatest local problem in maternal welfare; and attention is specially directed to it in the Report issued late last year on "An Investigation into 1,073 Maternal Deaths in New South Wales during the Years 1929–33."

In 1935 an educational film was made for public exhibition, in which is shown in part the scope of the various activities of the Division.

DIVISION OF TUBERCULOSIS.

In his Report (p. 81), the Director of the Division, Dr. H. G. Wallace, refers to continuation of the investigations of notified cases from the familial aspect, and to the particular attention that is being given to the group of young adults of ages ranging from fifteen to twenty-five years, with a view to early diagnosis by radiographic and clinical methods. This enables appropriate treatment to be undertaken in the stages where it is most likely to be effective, and permits of a better understanding of the sources and paths of infection. As data accumulate, it is becoming increasingly evident that contact with cases of infection, often unsuspected, in other members of the family group is an important factor in the transmission of the disease.

The total of 1,572 notifications of pulmonary tuberculosis received in 1935 shows an increase of 62 cases compared with 1934. This increase in the number of notifications is not thought to be due to an increase in infections, but rather to the fact that many persons are seeking earlier advice concerning suspicious symptoms, either from their medical attendants, or at the clinics; and that it is a hopeful and important result of the publicity campaign of the past two years, through the press and by radio broadcasting, directing attention to the dangers of tuberculosis and the facilities available for its early diagnosis.

There were 939 deaths from pulmonary tuberculosis in 1935, or 16 less than in 1934. Deaths from all forms of tuberculosis totalled 1,029, compared with 1,045 in 1934.

The Board of Control considers that notification of all forms of tuberculosis should be made compulsory throughout the State, and provision to effect this has been embodied in the draft Public Health Bill recently prepared for presentation to Parliament.

Details of an investigation made during the year by Dr. John Hughes into the after histories of 280 patients admitted during 1930 to various sanatoria in New South Wales is contained in the Appendix to the Report (p. 85). The information is tabulated in the order of admission to the various sanatoria. Of the 280 persons admitted in 1930, 109 were found to be dead in 1935—that is, within a period of five years.

Waterfall Sanatorium.—In his Report on the State Sanatorium at Waterfall, in which 873 patients came under treatment in 1935, the Medical Superintendent, Dr. H. W. Palmer, again directs attention to the need that exists for a separate institution for incurable, hopeless chronic cases in male patients who at present occupy sanatorium beds that should be available for patients in the earlier and curable stages of the disease; and to the urgent need of extra beds at the Randwick Auxiliary for acutely-ill women patients.

During the year artificial pneumothorax treatment was applied at Waterfall in 35 cases with satisfactory results, and several haemorrhages were controlled by this means.

Special courses of treatment tried during 1935 included Solganal B and "Ravetliet Pla" haemo-antitoxin serum. The results were disappointing. Halivol oil with bicalcium phosphate, and also mutton bird oil were used in a few selected cases, but preparations of cod liver oil were preferred by the patients.

Dr. Palmer points out that the provision now being made by the Commonwealth authorities for the care of all tuberculous ex-soldiers should set free a number of additional beds in the various sanatoria, and afford a special opportunity for a State-wide campaign to secure for these beds patients who are in the early and curable stages of the disease.

DIVISION OF VENEREAL DISEASES.

The notifications of Venereal Diseases received during 1935 showed an increase of 108 over those received in 1934 (the figures for the two years being respectively (1934) 4,721, (1935) 4,829). Of the total notifications, 1,143 were for syphilis (males 737, females 406), and 3,229 for gonorrhoea (males 2,726, females 503, a sex ratio of 5·42 males to 1 female).

A marked increase occurred in the notifications of gonorrhoeal ophthalmia (20 cases), due to an outbreak among children of various ages at one of the aboriginal stations. As soon as the condition was diagnosed, prompt action brought the outbreak under control.

Attendances at the metropolitan public clinics were 158,902 males and 33,144 females in 1935, a considerable increase compared with previous years.

At the Newcastle District Hospital Clinic (first opened in 1934) the attendances for 1935 numbered 14,629 (11,441 males and 3,188 females).

Investigational work on the effect of intensive vaccine treatment in acute gonorrhoea in the male has been carried out by a medical officer of the Division (D. J. H. Abbott) during the year.

Fresh Infections of Previously Treated Patients.—At the Departmental male clinic (at which the attendances numbered 105,207 in 1935), 190 previously discharged patients returned with fresh infections; 7 were cases of syphilis (2 with gonorrhoea as well); the balance were infected with gonorrhoea, with the exception of 4 with venereal warts. The Divisional Director points out that while it appears fundamentally wrong to treat such fresh infections (where ignorance or inexperience can no longer be pleaded) free of charge, any attempt to penalise these patients would only tend to encourage self-treatment and recourse to unqualified persons. In his opinion, increased facilities for prophylaxis and adequate publicity concerning its advantages might afford a considerable amount of protection.

INFECTIOUS DISEASES NOTIFIABLE UNDER THE PUBLIC HEALTH ACT, 1902.

A summary of the infectious diseases notifiable under the Public Health Act, 1902, with Tables and Graphs is contained in the Report on pages 52–68. In 1935 the notified cases totalled 7,828 compared with 8,748 in 1934. The decrease in 1935 was due to fewer notifications of diphtheria (4,913 cases, 194 deaths in 1935, and 6,167 cases, 193 deaths in 1934). The disease appears to have been somewhat severer in type in 1935 when the fatality rate was 3·94 per cent., compared with 3·12 in 1934. There was a slight increase in *scarlet fever* prevalence in 1935, 2,250 cases (18 deaths) being notified, compared with 2,166 cases (19 deaths) in 1934.

Typhoid Fever.—There were 173 notified cases with 20 deaths compared with 141 cases and 19 deaths in 1934. The increase occurred in the metropolitan area (95 cases and 9 deaths in 1935, and 49 cases and 3 deaths in 1934), and was due to two outbreaks of typhoid fever in the western suburbs associated with milk runs. Particulars of these outbreaks will be found in the Report of the Medical Officer of Health (page 98).

Infantile Paralysis.—After an interval of 27 months (June, 1932, to September, 1934) during which occasional cases only were reported, infantile paralysis again occurred in epidemic form between October 1934 and July 1935, a total of 264 cases being recorded for the ten months. A graph is included (page 65), which shows the seasonal incidence of the six epidemics that have occurred in New South Wales from 1915 to 1935. The disease in the 1934–35 outbreak appeared to be of the less severe type with a death rate of about 10 per cent.; and with few permanent crippling after effects.

Endemic Typhus Fever.—Nine cases of typhus fever occurred in 1935, the highest number so far recorded in any one year. Five of the cases (4 males 1 female) were in Sydney and 4 (3 males, 1 female) in the North Coast area. Of the Sydney cases, 2 (1 fatal) occurred among packers at a hardware store in Kent-street.

From 1928 to 1935, 28 cases have been recorded in New South Wales, of which 14 were reported from the metropolitan area and 16 from the North Coast; 16 of the 28 cases occurred during the last two years.

Puerperal Infection.—Two hundred and sixty-six cases and 72 deaths were notified in 1935; further particulars concerning these are given in the Report of the Maternal and Baby Welfare Division (page 40).

Leprosy.—Three cases of leprosy were admitted to the Lazaret in 1935, and 1 patient died; 18 persons (15 males and 3 females) remained under detention on 31st December, 1935. A summarised report concerning leprosy in New South Wales will be found on page 137.

Fumigation with Hydrocyanic Acid.—In connection with 11 accidental deaths in New South Wales from asphyxia by cyanide gas during fumigation of buildings and ships during the last twenty years, some instructive notes have been compiled (page 13) for purposes of reference concerning this highly dangerous gas. Information is given concerning its diffusion, physiological action, action on animals, symptoms of poisoning by the gas, etc., and also in regard to absorption of the gas by foodstuffs and other articles in the course of fumigation.

As the law stands at present any person calling himself a fumigator may apparently obtain cyanide and use it without adequate precautions. The amending health legislation which has been prepared for presentation to Parliament contains provision for control over this and similar operations which constitute a danger to the public.

DIVISION OF INDUSTRIAL HYGIENE.

Dust Diseases of the Lungs.—A summary concerning the investigations in progress on dust diseases of the lungs and the growing importance of pneumoconiosis among coal-miners is contained in the Report (page 92) of the Medical Officer-in-Charge of the Division (Dr. Charles Badham).

Attention is also directed to the need for revision from the medical point of view of the different compensation laws for pneumoconiosis and silicosis—conditions between which it is practically impossible to distinguish medically in cases where workers have been exposed to a variety of dusts.

Lead Poisoning among industrial workers is reported by the Industrial Hygiene Division to be increasing. One hundred and thirty-one persons were examined for lead poisoning in 1935, and 66 were found to be affected. The majority of the cases were from battery works, but lead smelting and vitreous enamelling (a process in which the use of lead is on the increase) gave rise to 12 cases. Increased development in factory inspectorate work is considered necessary for reduction of the incidence of lead poisoning in this State.

Arsenical Poisoning.—Increased use of arsenic in agricultural pursuits is resulting in cases of arsenic poisoning being more commonly met with in industry. At one country arsenic refinery, failure to arrest the arsenic in flues resulted in quantities (estimated at from 5 to 20 tons) being broadcast over the surrounding country side. In this instance human beings fortunately escaped, but some 200 head of sheep and cattle were killed.

It has been noted by the Division that typical herpes zoster is an occurrence among some individuals poisoned by arsenic.

Ventilation of Picture Shows, Theatres, etc.—The advent of air conditioning plants, and the desire of engineers concerned for unlimited recirculation of cooled or heated air, may call for strict regulation. The Division points out that the effect of a polluted air supply to theatres, etc., is likely to be more serious than the pollution of a metropolitan water supply, and should be as zealously guarded against. It is considered that the minimum requirement should be 15 cubic feet of fresh air per person per minute, whereas plants are being installed in Sydney which provide for only 10 cubic feet or less per person.

GOVERNMENT ANALYST'S BRANCH.

In the Chemical Laboratory 31,082 samples were examined in 1935, of which nearly two-thirds (20,527) were samples of milk submitted for examination in connection with the Pure Food Act; inspectors authorised under that Act submitted 14,678 milk samples from the metropolitan area, and 2,608 samples from various country districts. The Milk Board sent 3,451 samples. Of the total milk samples, 441 (2·14 per cent.) were not in conformity with the standard; 200 were deficient in fat; 185 contained added water; 48 were deficient in fat and contained added water; 5 contained preservatives; and 3 were contaminated by dirt. The proportion of adulterated milk samples were 1·68 per cent. in 1934 and 2·14 per cent. in 1935; in the country milks the adulterations amounted to 5·17 per cent., the highest percentage recorded since 1930.

Freezing Point Standard.—As a result of the tests made in the Chemical Laboratory over a period of fifteen months, on samples of genuine milk taken at dairies in the milk-producing districts, it has been decided to substitute a freezing point standard of —0·535° C. for the standard of —0·55° C.

Analysis of Foods other than Milk; and Drugs.—Of 7,977 analysed samples of food other than milk, 732 (9·17 per cent.) contravened the provisions of the Pure Food Act; and of 180 samples of drugs, 4·44 per cent. did not conform to standards. These percentages give the lowest number of adulterations of food and drugs hitherto recorded in the Chemical Laboratory. Particulars of the adulterations are given in Table I, page 24.

Criminal Investigations.—One hundred and sixty-four exhibits were submitted by the police for examination in connection with coroner's enquiries, court proceedings, etc.

Tests for Alcoholism.—An investigation was made during the year into the alcoholic content of the blood and urine of persons under the influence of liquor. Tests were made on persons where known amounts of whisky, rum, wine, or beer had been administered. It was found that the quantity of alcohol excreted was proportionate to the amount consumed; and that examination of the urine will give a fairly reliable indication of the minimum quantity of liquor taken.

Pollution of Beaches.—Another investigation which was made concerned the pollution of beach sands where beaches are extensively used for recreation purposes by the public, with the object of determining standards for classification of beaches as (*a*) unpolluted, (*b*) slightly polluted, and (*c*) excessively polluted.

PURE FOOD BRANCH.

The Chief Food Inspector reports (page 31) that in 1935 inspections were made by Pure Food Officers of 11,700 premises used in connection with the preparation, storage or sale of food, and more than 20,000 samples of foods and drugs were collected for analysis. Prosecutions in connection with such samples were instituted in 597 cases, and fines and costs amounting to £1,461 13s. were imposed.

Dusting of Fresh Meat with Preservative Powders.—Officers of the Branch report that the Department's continuous efforts to stop the use of preservative powders on meat has materially lessened this unwarranted adulteration; but that rigid supervision is still necessary over some traders. Preservatives in varying quantities were present in 535 of the 6,622 samples of fresh meat obtained for analysis in 1935, the fines and costs imposed totalled £670. A recommendation for cancellation of the trading licenses of persistent offenders is under consideration.

Adulteration of Imported Salted Fish.—A number of samples of imported salt cod and ling were found to contain excessive amounts of boric acid and formaldehyde—in some instances up to 22 grains per lb. of boric acid, and 200 parts per million of formaldehyde. Consignments found to contain these preservatives were returned to the original shippers.

Excess Tin in Imported Canned Sild.—Several samples of sild examined were found to contain up to 4 grains per lb. of tin in excess of the permitted amount of 2 grains per lb.

Misdescription of Fillets of Fresh Fish.—Several convictions were obtained with salutary effects against vendors of fresh fish who were selling fillets of inferior fish as " bream," " schnapper," etc.

Excess Copper in Canned Green Vegetables.—Two samples of locally canned beans and peas were found to have been coloured with copper; adulteration of this nature has been in abeyance for a lengthy period.

Liquer Chocolates.—Prosecutions were successfully taken for sale of chocolates containing excess alcohol.

Beer.—No preservatives were found in thirty-seven samples of beer examined; all the samples were found to be in accordance with the standard.

PUBLIC HEALTH ACTS, ETC.: ROUTINE AND GENERAL INSPECTIONS.

In reporting on the work of the Inspecting Branch for 1935, the Chief Inspector (Mr. G. A. Garrow) refers to the increasingly technical nature of the work required from this Branch in connection with the supervision exercised over various municipal activities, trade and manufacturing processes, etc., in populated areas.

The disposal of drainage from woolscouring works and canning factories was the subject of further investigation. Experimental plants are under test, and are giving reasonably satisfactory results. At canning factories the drainage is treated by screening and sedimentation tanks; arrested matter being burned or buried.

Where woollen mills are adjacent to a tidal river, the drainage is treated with lime before being pumped to settling basins from which it ultimately passes horizontally by coke screens. The residue from the settling basins is removed to drying ponds. Monthly tests made of samples of the final drainage, and of the river water have been found fairly satisfactory.

Increased employment of certificated inspectors.—There has been a considerable increase in the number of certificated health inspectors and meat inspectors employed by country municipal and shire councils. This is a direct result of the regulations issued a couple of years ago under the Public Health Act requiring that Local Authorities should appoint only qualified health inspectors; and of recent amendments to the Cattle Slaughtering Acts by which councils are empowered to charge fees for meat inspection.

Filling materials for bedding and upholstery.—A standard specification for the grading, classification and sterilization of feathers and downs for use in bedding, upholstery, etc., has been prepared, and is on trial for a period, preparatory to its gazettal as a regulation.

Amended regulations giving wider control over flock and other materials used in the bedding and upholstery trades, were issued during the year.

Dead Wool Processing.—Regulations were issued in September, 1935, under the Public Health (Amendment) Act, 1921, specifying the precautions to be observed in the handling and sorting of wool collected from dead animals, and the action to be taken in the event of an employee receiving injury in the course of such employment.

PRIVATE HOSPITALS ACT, 1908. (p. 36).

At the end of 1935 there were 635 licensed private hospitals in New South Wales, of which 241 (2,910 beds) were in the metropolitan area; and 394 (2,642 beds) in country districts, a decrease of 72 licenses and 446 beds, as compared with the licenses in operation at the end of 1934.

Inspections of private hospitals are made by a specially trained staff of supervisory nurses, who on an average make two inspections a year of each licensed premises; in addition special inspections are made where necessary by a medical officer or a sanitary inspector. There has been a noticeable improvement in the general standard of licensed premises following the regular inspections instituted during the last two or three years, but the supervisory medical officer (Dr. B. R. Overend) reports that a number of the smaller hospitals are still of poor type. In his opinion the carrying on of an outdoor practice by the resident manager is an undesirable procedure, although this frequently occurs in connection with the smaller type of hospital.

The Act controlling private hospitals (in operation since 1908) has been found deficient in many important respects, and amended legislation is urgently needed to procure more uniformity, particularly in respect of the buildings, equipment, and staffing.

HOSPITAL ADMISSION DEPOT: AND MEDICO-LEGAL SECTION. (p. 38).

As part of the routine work of this Division during 1935, arrangements were made for hospital treatment of 19,335 persons, 8,447 of whom were admitted to the various metropolitan hospitals; 7,916 to one or other of the State Hospitals and Homes; and 980 to the Convalescent hospitals at Camden and Vaucluse. 1,992 persons were referred for treatment at the Outpatients' departments of the metropolitan hospitals.

This Branch also carries out medical examinations required by State Government departments; and by the Police department; and undertakes the medical supervision of sick police.

The *medico-legal* work requires officers attached to the Branch to be on duty at all hours for any examinations required in connection with criminal assault, rape and murder charges; or at the city morgue in connection with suicides, murders and violent or uncertified deaths. Attendance is also required at the Coroner's Court, and Police and Criminal courts to give evidence concerning such cases.

SECTION II: MEDICAL OFFICERS OF HEALTH.

1. METROPOLITAN COMBINED SANITARY DISTRICT.

In his report as Medical Officer of Health for the Metropolitan Combined District (p. 98), Dr. J. S. Purdy reviews the health conditions during 1935 of the metropolis of Sydney (population 1,250,500) and of the larger area which constitutes the Metropolitan Combined Sanitary District (population 1,322,080).

Typhoid fever.—Two milk-borne outbreaks of typhoid fever in the western suburbs were responsible for 47 of a total of 95 cases of typhoid fever notified in the metropolitan district in 1935; although the excretions of all persons handling the milk were repeatedly examined, in neither outbreak was a " carrier " discovered.

Scarlet fever.—Seven cases occurred among the patients of a suburban dentist, whose nurse-attendant was found to harbour haemolytic streptococci. Another outbreak of scarlet fever occurred in one of the wards of a suburban hospital, which it was deemed advisable to temporarily close.

Food-poisoning.—Fifty-five cases of food poisoning at Bankstown on 6th April were found to have followed the eating of ice-cream, which was made locally and sold in pennyworths in the street. Steps were taken to prevent manufacture of any further ice cream on the same premises. All the patients recovered.

Alleged malnutrition and prevalence of rickets in school-children.—The Lord Mayor of Sydney called a conference of medical experts in connection with a published statement that " Forty per cent. of school children showed evidence of retardation owing to malnutrition "; and a committee was appointed by the conference to investigate any available evidence in support of the statement.

In reporting to the Lord Mayor, the Committee pointed out that there are no set standards on which to base an estimate of what should be the state of nutrition of any particular child, on account of the various factors of heredity, environment, endocrine development, etc., but from the extensive enquiries made it formed the opinion that at the present time there is little evidence of gross malnutrition in Sydney, and directed attention to the following sources of information :—

(*a*) the routine medical examination of 80,000 children by the school medical officers in the metropolitan area in which the incidence of notifiable malnutrition was 1 per cent.

(*b*) a recent intensive survey of 2,658 children in two schools in which the incidence of malnutrition was found to be 2·3 and 1·2 per cent. respectively.

(*c*) medical staffs of the Children's Hospital are of opinion that there is little evidence of malnutrition in children attending for treatment.

In regard to rickets, the experience of members of the Conference was that at present the incidence of rickets is low, but that four years earlier it had been much higher than previously; rickets was known to occur in families who could afford to buy what food they wished, as well as in those in straitened circumstances.

The Conference considered that valuable information could be obtained for the fixing of an optimum standard of nutrition by a special investigation covering children of preschool age and children attending school.

SURVEY OF HEALTH CONDITIONS IN SYDNEY—1913-1935.

Valedictory Review.—In 1936 Dr. Purdy will be retiring from the position he has so worthily filled since 1913 of Metropolitan Medical Officer of Health, and he has appended to his report a survey of the health progress of Sydney since 1913.

During his term of office Dr. Purdy has taken the greatest interest in every movement for the betterment of health conditions in Sydney. He has been a persistent advocate for the clearance of congested areas; for better housing conditions; for improvement of the milk supply; and has insistently urged the importance of provision of ample parks and playing areas.

In advocating the need of a *Greater Sydney* movement, Dr. Purdy enumerates the multifarious incoordinated authorities, departments and boards that at present control the public utilities, food supplies etc., used daily by the average resident of Sydney and urges recognition by the people themselves of the need for a capable administrative body with unity of control. In furtherance of such a movement Dr. Purdy considers that it would be possible to utilise the provisions of the Local Government Act for the regional grouping of adjacent municipalities and suggests the following groups as convenient divisions—

North Sydney: Kuring-gai; Lane Cove, Manly; Mosman; North Sydney; Willoughby; and Hornsby and Warringah Shires.

East Sydney: Vaucluse; Waverley and Woollahra.

Sydney: City of Sydney, Alexandria; Annandale; Balmain; Botany; Darlington; Erskineville; Glebe; Leichhardt; Mascot; Newtown; Paddington; Randwick; St. Peters; and Waterloo.

West Sydney: Ashfield; Burwood; Concord; Drummoyne; Enfield; Homebush; Marrickville; Petersham; Strathfield.

South Sydney: Bexley; Canterbury; Hurstville; Kogarah; Rockdale.

2. NEWCASTLE AND HUNTER RIVER DISTRICT.

In his report for 1935 on the Newcastle and Hunter River Combined Sanitary District, the Medical Officer of Health (Dr. T. Lewis Dunn) gives the estimated population as 216,090 for the 17 municipalities and 5 shires which, together with the Harbour of Port Hunter constitute the Combined District—a population almost equal to that of the State of Tasmania (231,453).

Health conditions in the highly industrialised Newcastle district were generally satisfactory during 1935. The birth rate for the Combined district was 17·28 and the general death rate 8·88 per thousand of population; the infantile mortality rate was 39·88 per thousand births, compared with a rate of 57·50 in 1934 and 44·30 in 1933.

Typhoid Fever.—There were 16 cases and 2 deaths compared with an annual average of 24 cases and 5 deaths for the preceding five years. A small outbreak of 7 cases occurred at Morpeth, in connection with which ten employees at a local milk factory were examined bacteriologically for the "carrier" state, with negative results.

Tuberculosis.—Notification of pulmonary tuberculosis increased from 69 cases in 1934 to 117 cases in 1935, due not to a greater incidence of infection, but to the provision of better facilities for diagnosis by the use of X-rays; and to intensive publicity propaganda by which the attention of the public was directed to the facilities available in the district for examination and advice. Medical practitioners were also reminded of their responsibilities in respect of notification of pulmonary tuberculosis.

Infectious Diseases Hospital for Newcastle.—A hospital of 60 beds for infectious cases was in course of erection in 1935, and when taken into use in 1936 should relieve conditions at the Newcastle Hospital isolation block, where appalling conditions of overcrowding have occurred during past epidemics. Dr. Dunn considers that double the accommodation provided in the new hospital is needed at Newcastle for infectious cases; and that the limited accommodation provided will lead not only to continued overcrowding of such cases, but also means that severe cases of the non-notifiable infectious diseases, such as measles and whooping cough, may have to be refused admittance although the mortality from these diseases approaches (and sometimes exceeds) that of the notifiable diseases.

Venereal Diseases.—315 notifications were received in 1935, compared with 209 in 1934, which affords evidence that a larger proportion of infected persons are presenting themselves for treatment at the Venereal Diseases Clinic opened at the Newcastle Hospital in June, 1934. Attendances at this Clinic totalled 14,629 (males, 11,441; females, 3,188) in 1935.

3. BROKEN HILL AND DISTRICT.

The Officer-in-Charge of the Bureau of Medical Inspection at Broken Hill (Dr. W. E. George) is also the Medical Officer of Health for the municipality and surrounding district. In his report on health conditions at Broken Hill during 1935 (p. 117), Dr. George comments on the continued low incidence of notifiable infectious diseases in a population estimated as 26,734 at 30th June, 1935.

The departmental laboratory at Broken Hill, situated at the Broken Hill Hospital, is supervised by Dr. George. It carries out all the bacteriological, pathological and biochemical work required by the hospital and practitioners in the surrounding district. The 2,766 examinations made in 1935 comprised 1,613 bacteriological, 541 haematological and 101 pathological (tissue) investigations; and 511 biochemical tests.

SECTION III.—STATE HOSPITALS AND HOMES.

The Medical Superintendent of the Prince Henry (formerly Coast) Hospital reports that 9,530 patients were treated during 1935, equivalent to a daily average of 701 occupied beds. Infectious cases treated during the year numbered 2,606; and out-patients visits totalled 17,539.

Reconstruction work at the hospital was continued steadily throughout the year and comprised completion of a new operation block containing two theatres; X-ray and radio-therapeutic departments and a laboratory block. Construction work in progress at the end of December included two new medical blocks each to provide accommodation for 180 patients; the new administration and out-patients blocks, and dispensary.

The resident staff at the end of 1935 numbered 491 (medical and administrative, 36; nursing, 296; general, 159). The total cost of administration for 1935 was £94,251 7s.; and the average cost per occupied bed, £165 9s. 6d.

DEMOLITION OF THE MACQUARIE-STREET (PARRAMATTA) HOME FOR AGED MEN.

It became necessary early in the year to arrange for closure and demolition of the old building in Macquarie-street, Parramatta, which for over 50 years had been used as a Home for aged men suffering from defective sight. Provision was accordingly made for transfer of the inmates to the Lidcombe State Hospital and Home. The building at Parramatta (erected in 1820) was vacated during February, 1935, and demolished later in the year.

CARRARA CONVALESCENT HOSPITAL.

Admissions to the "Carrara" Convalescent Hospital at Rose Bay in 1935 totalled 1,367 (401 men and 966 women). Extensive improvements were made to the grounds of this beautifully situated hospital during the year; a new home was erected for the nursing staff; wireless installations were made in both the male and female divisions of the hospital; the lighting of the grounds was improved, and lawns were laid down for croquet and bowls. The comfort of patients has also been added to by the grading and relaying of several of the paths and walks leading from the hospital sections to the surrounding gardens, and to the beach.

SECTION IV.—MICROBIOLOGICAL LABORATORY.

The Principal Microbiologist (Dr. E. L. Morgan) reports that 80,752 examinations were made in the Microbiological Laboratory in 1935, compared with 82,984 in 1934. Specimens examined for public hospitals and institutions (other than the departmental and State hospitals) numbered 30,040; and 18,859 specimens were examined for private practitioners.

In connection with the supervision maintained over the milk supply, 1,185 samples were examined, of which 1,177 were received from the Milk Board. Samples of milk examined for *tubercle bacilli* numbered 509, in 5 of which (·98 per cent.) *tubercle bacilli* were detected; 75 samples (14·73 per cent.) showed the presence of *B. abortus*.

No evidence of plague was found in any of the 3,644 rats submitted for examination from city wharves and warehouses.

STAFF APPOINTMENTS.

Appointment of Secretary.—Mr. C. J. Watt was appointed as Secretary to the Office of the Director General of Public Health on 1st January, 1935, in succession to the late Mr. J. J. Potter, whose death occurred in December, 1934.

Mr. Watt, like his predecessor, began his official career in the State public service as an officer of the Health Department, in which he took up duty in 1915 upon entering the service by competitive examination. From the early days of his appointment he showed marked ability as an officer, and prior to his appointment as Secretary had successfully filled the positions of Accountant and Chief Clerk. To his new responsibilities Mr. Watt brings an intimate knowledge of every branch of the department, and the energy of youth. His appointment is popular with all sections, and has given a confidence which should be reflected in the increased efficiency and development of all branches of the work.

Chief Clerk.—The promotion of Mr. J. J. V. Boyle to the position of Chief Clerk was another appointment that strengthened the clerical administration, and met with the cordial appreciation of all branches with the officers of which Mr. Boyle had been in intimate contact during his eight years occupancy of the post of Inspector of State Hospitals. Mr. Boyle joined the Service in 1903, and like Mr. Watt has spent the intervening years with the department, with every branch of which he has had close personal experience.

ASSISTANCE FROM OTHER DEPARTMENTS AND ORGANISATIONS.

I desire to record my grateful thanks in acknowledgment of the valuable assistance and co-operation received throughout the year from the officers of various public departments, particularly officers of the Commissioner of Police, the Government Statistician, Crown Solicitor, Government Printer, and the departments of Local Government, Public Works, Lands and Agriculture.

I wish also to specially thank the Country Women's Association for their co-operation and invaluable help in connection with the establishment of Baby Health Centres; and the "Smith Family" and other kindly citizens who throughout the year have provided entertainments for inmates of the State Hospitals and Homes, and have helped them so materially at Christmas with welcome gifts and good cheer.

VITAL STATISTICS (p. 9): BRANCH REPORTS (pp. 16-155).

An extract from the Report of the Government Statistician (Mr. T. Waites) on the Vital Statistics of New South Wales for 1935 will be found on p. 9; and the succeeding pages contain the Reports of the Officers-in-Charge of the various Divisions and Institutions under my charge. Owing to pressure of routine work, and shortage of medical staff, no important investigational work could be undertaken in 1935; but the following short papers are included in one or other of the Divisional Reports:—

(*a*) Determination of the Quantity of Alcohol contained in Human Urine and Blood after the Administration of definite quantities of Alcoholic liquids (p. 27).

(*b*) Notes on Hydrocyanic Acid with Special Reference to its Use in Fumigation (p. 13).

(*c*) Intensive Vaccine Therapy in Acute Gonorrhœa in the Male (p. 73).

(*d*) Investigation into the After-histories of 280 patients admitted to various Sanatoria in New South Wales in 1930 (p. 85).

(*e*) Valedictory Review (Dr. J. S. Purdy) of Health Conditions, Sydney, during the 23 years, 1913–1935 (p. 108).

(*f*) Departmental publicity work (p.49).

H. G. WALLACE,
Acting Director-General of Public Health.

Extract from the Report of the Government Statistician, Mr. T. Waites, on the Vital Statistics of New South Wales for the year 1935.

Population.—The population at the end of 1935 was 2,657,666, of whom 1,344,339 were males and 1,313,327 females, the proportion being 102 males to 100 females. During the year the population increased by 21,206, or 0·80 per cent. Of this increase, the excess of births over deaths accounted for 20,127, and the excess of arrivals over departures for 1,077. The mean population was 2,645,575.

Births.—The total number of births was 44,676, equivalent to 16·89 per 1,000 of population, which is 6·27 per cent. below the average of the previous five years. Of this number, 22,790 were males and 21,886 females, the proportion being 104 males to 100 females.

Dividing the State into the Metropolis and remainder of the State, there were 16,907 births in the former and 27,769 in the latter, corresponding to rates of 13·52 and 19·91 respectively.

Deaths.—The deaths during the year numbered 24,547, equivalent to a rate of 9·28 per 1,000 of the population. This rate is 9·05 per cent. above the average of the previous five years.

The total includes 13,891 males and 10,656 females, equivalent to rates of 11·37 and 8·16 respectively per 1,000 of population. The rate in the Metropolis was 10·04 per 1,000 and in the remainder of the State 8·60.

Of the 24,547 people who died during the year, 2,377 were under 5 years of age, 10,690 were aged from 5 to 64, 11,472 were 65 and over, and 8 age not stated. The rates per 1,000 living in the main groups under and over 5 years were 10·83 and 9·14 respectively, as compared with 11·80 and 8·17, the average of the previous five years.

Infantile Mortality.—The number of children under 1 year of age who died was 1,762, equal to 39·44 per 1,000 births. To this total the Metropolis contributed 602, or 35·61 per 1,000 births, and the remainder of the State 1,160, or 41·77 per 1,000 births. The rate for 1935 is 10·75 per cent. below the average of the previous 5 years. Of the deaths under 1 year of age, 1,027, or 58·29 per cent. occurred under 1 week, 1,240, or 70·37 per cent., under 1 month, and 1,394, or 79·11 per cent. under 3 months.

Causes of Death.—Of the deaths during the year, the most important causes were as shown in the following statement, which for purposes of comparison also gives the average number of deaths during the preceding five years, due allowance having been made for increase of population.

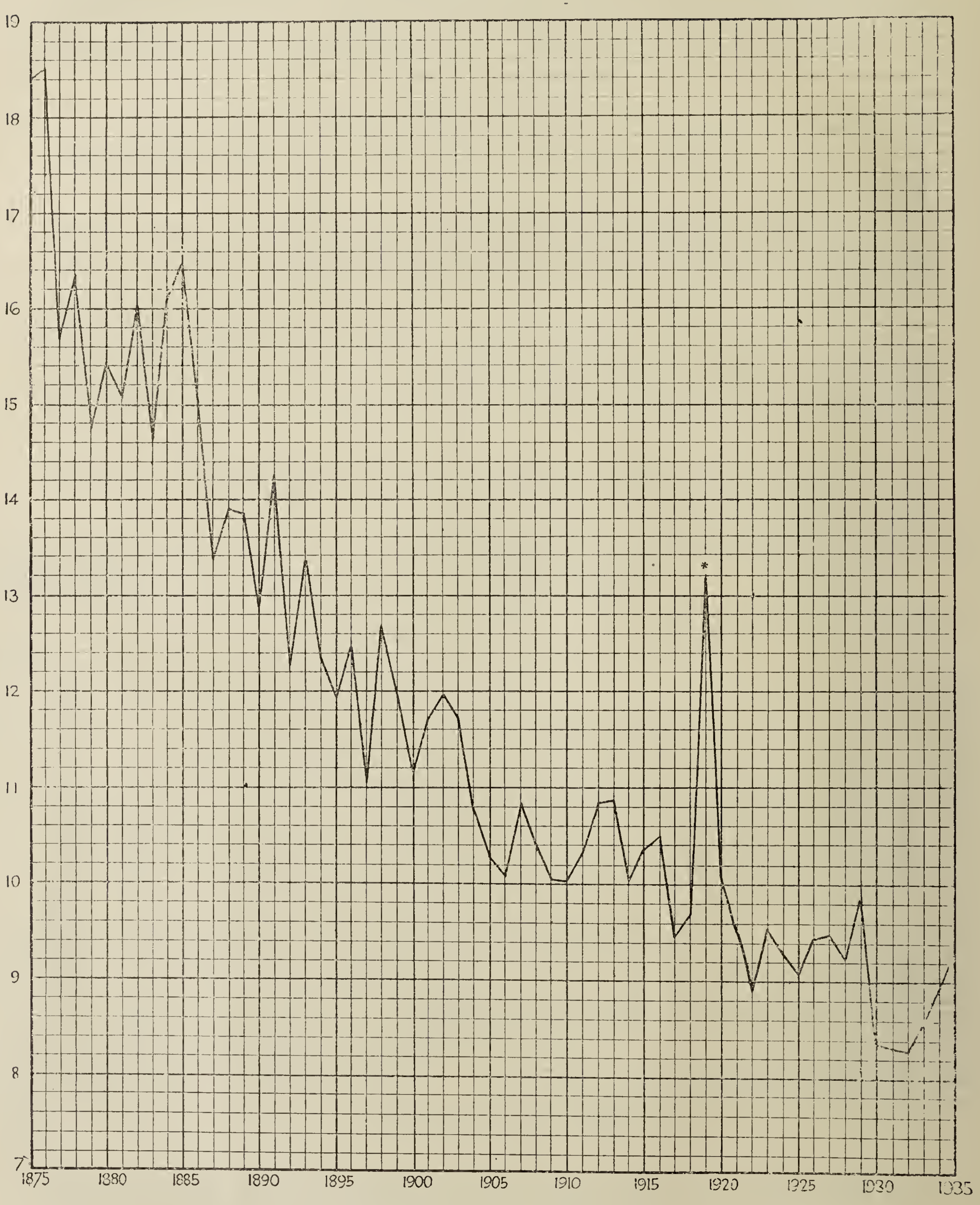
Causes of Death.	Number, 1935.	Average Number, 1930-34. *	Increase (+) or Decrease (—) in 1935.	Causes of Death.	Number, 1935.	Average Number, 1930-34. *	Increase (+) or Decrease (—) in 1935.
			per cent.				per cent.
Typhoid Fever	20	33	— 39	Diseases of the Arteries, Atheroma, etc.	1,402	1,031	+ 36
Measles	83	45	+ 83	Other Diseases of the Circulatory System	25	29	— 14
Scarlet Fever	18	45	— 60	Bronchitis	310	342	— 9
Whooping Cough	63	148	— 57	Pneumonia	1,712	1,403	+ 22
Diphtheria and Croup	194	178	+ 9	Other Diseases of the Respiratory System	236	270	— 12
Influenza	578	234	+147	Diseases of the Stomach	126	128	— 1
Plague	...	...	...	Diarrhoea and Enteritis (under 2 years)...	127	267	— 52
Erysipelas	23	26	— 12	Diarrhoea and Enteritis (2 years and over)	87	132	— 34
Infantile Paralysis	20	19	+ 5	Appendicitis	275	219	+ 25
Lethargic Encephalitis	16	17	— 6	Hernia, Intestinal Obstruction	209	208	...
Epidemic Cerebro-spinal Meningitis	5	8	— 37	Cirrhosis of the Liver	112	95	+ 18
Other Epidemic Diseases	19	28	— 32	Other Diseases of the Digestive System...	391	376	+ 4
Tuberculosis, Respiratory System	939	1,008	— 7	Bright's Disease (Acute and Chronic) ...	1,538	1,417	+ 9
Tuberculosis, Meninges and Nervous System	31	43	— 28	Other Genito-urinary Diseases	407	381	+ 7
Other Tuberculosis Diseases	59	67	— 12	Puerperal Septicaemia	72	72	...
Cancer	2,772	2,574	+ 8	Other Puerperal Diseases	210	211	...
Diabetes	453	382	+ 19	Malformations	249	247	+ 1
Other General Diseases	565	602	— 6	Congenital Debility	81	108	— 25
Diseases of the Blood	226	248	— 9	Premature Birth	586	699	— 16
Chronic Poisonings and Intoxications	26	31	— 16	Other Developmental Diseases	352	304	+ 16
Meningitis	105	98	+ 7	Senility	769	760	+ 1
Cerebral Haemorrhage and Apoplexy	686	847	— 19	Suicide	335	327	+ 2
Insanity	84	87	— 3	Accident	1,142	1,139	...
Convulsions of Infants	10	15	— 33	All other Causes	310	333	— 7
Other Diseases of the Nervous System ...	598	563	+ 6				
Diseases of the Heart	5,891	4,661	+ 27	Total	24,547	22,505	+ 9

*Adjusted to the mean population of 1935.

Epidemic Diseases.—The deaths from epidemic diseases numbered 1,039 as compared with an average of 781 during the previous five years, the rate increased by 33 per cent. The deaths from scarlet fever numbered 18, an experience which was 60 per cent. less than the average rate of the previous five years.

Tuberculosis of the Respiratory System was the cause of 939 deaths in 1935, the rate 355 per million living, being 7 per cent. below the average rate of the previous five years. The deaths of males numbered 589 and of females 350, and the rates per million living were 440 and 268 respectively. The mortality rate from other tuberculous diseases was 18 per cent. below the average of the previous five years.

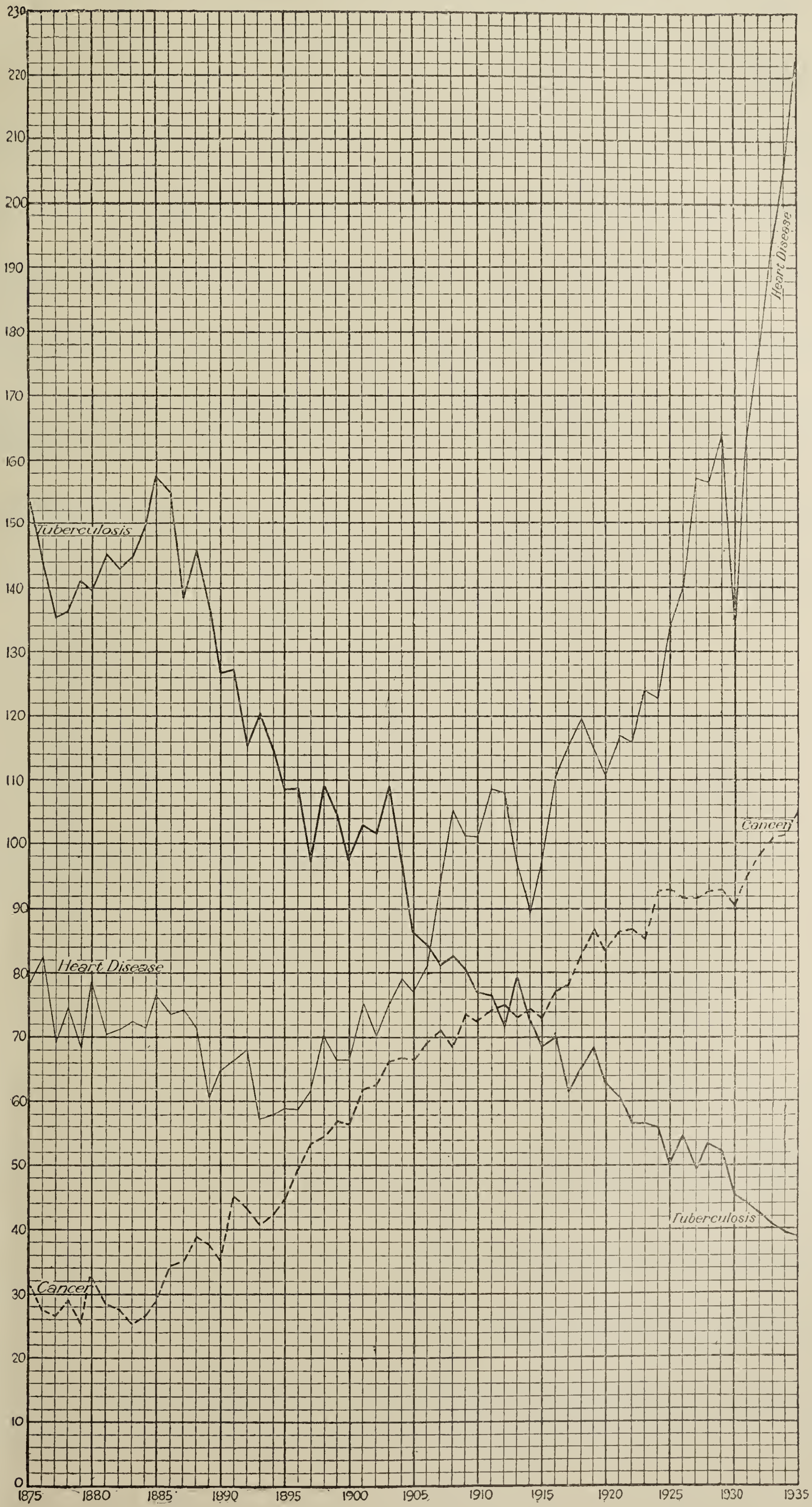
ANNUAL DEATH RATE PER 1,000 OF THE POPULATION IN NEW SOUTH WALES, 1875-1935.



* 1919—Influenza Epidemic (deaths, 6,387).

CANCER, TUBERCULOSIS, AND HEART DISEASE.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935.



Cancer.—The deaths from Cancer numbered 2,772, equal to a rate of 1,048 per million living, and 8 per cent. above the average rate of the preceding quinquennial period. The deaths of males numbered 1,451 and of females 1,321, the rates for each sex being 1,084 and 1,011 per million respectively. The death rate from this disease has been increasing steadily for a number of years.

Cerebral Haemorrhage.—To cerebral haemorrhage and apoplexy during 1935 were ascribed 686 deaths, of which 316 were those of males and 370 of females. The rate was 259 per million living, or 236 for males and 283 for females.

Diseases of the Heart were the cause of 5,891 deaths, the rate being 2,227 per million. The apparent increase in these deaths during the last 25 years is probably the result of the greater attention given to pathological diagnosis. Furthermore, in combination with other diseases, where precise information is lacking, diseases of the heart are given precedence over many other diseases. The rate for deaths from heart diseases in 1935 was 27 per cent. above the average rate of the preceding 5 years. Of the total deaths, 3,435 were of males and 2,456 females, the corresponding rates per million living of each sex being 2,565 and 1,880.

Bronchitis and Pneumonia.—Bronchitis with 310 deaths, equal to a rate of 117 per million living, showed a decrease of 9 per cent., and pneumonia, with 1,712 deaths or 647 per million, an increase of 22 per cent. as compared with the experience of the previous five years.

Of the deaths from bronchitis, 169 were of males and 141 of females, or 126 and 108 per million living respectively. Of the persons who died from pneumonia, 999 were males and 713 were females, and the rates were 746 and 546 per million living of each sex.

Bright's Disease.—During 1935 there were 1,945 deaths due to diseases of the genito-urinary system, of which 1,537 were caused by acute nephritis and Bright's disease. The rate for nephritis (acute and chronic) was 581 per million living; for males 661 per million and for females 499 per million. In 1935 the rate was 8 per cent. more than the average of the previous five years. The general tendency of the rate has been to increase.

Diseases of Infants.—The principal causes were prematurity, 586; other developmental diseases, 638; diarrhoea and enteritis, 92; pneumonia, 176; whooping cough, 41; bronchitis, 12; measles, 10; influenza, 17; and meningitis, 15.

The following statement shows the causes of deaths of children under 1 year of age per 1,000 births, during 1935, in comparison with the preceding five years:—

Causes of Death.	Males.		Females.		Total.	
	1935.	1930–34.	1935.	1930–34.	1935.	1930–34.
Epidemic Diseases	2·02	2·90	1·97	3·08	1·99	2·99
Tuberculous Diseases	·18	·18	·14	·27	·16	·23
Syphilis	·04	·30	·09	·25	·06	·27
Meningitis	·31	·52	·37	·28	·34	·40
Convulsions	·09	·23	·09	·24	·09	·23
Bronchitis	·26	·76	·27	·59	·27	·68
Pneumonia	4·52	4·77	3·34	3·86	3·94	4·33
Diarrhoea and Enteritis	2·72	4·65	1·37	3·62	2·06	4·14
Malformations	4·96	5·04	4·20	3·78	4·59	4·43
Congenital Debility	2·15	2·86	1·46	1·65	1·81	2·27
Premature Birth	14·22	16·33	11·97	12·92	13·12	14·67
Injury at Birth	4·69	3·47	3·79	2·62	4·25	3·06
Other Diseases of Early Infancy	4·17	3·72	3·06	2·89	3·63	3·31
Other Causes	3·64	3·58	2·61	2·75	3·13	3·18
All Causes	43·97	49·31	34·73	38·80	39·44	44·19

MATTERS OF PUBLIC HEALTH INTEREST.

Notes on Hydrocyanic Acid with special reference to its use in fumigation. (Dr. H. G. Wallace.)

The following notes have been compiled for purposes of reference, and on account of their bearing on proposed legislation under an amended Public Health Act. At present the methods of departmental control of the frequently highly dangerous procedure of fumigation by means of hydrocyanic acid gas are far from adequate. The possibility of danger arising from the use of poisonous substances for the fumigation of buildings has been recognised. Some years ago draft regulations were framed with a view to instituting methods of control by this department, but it was found later that an amendment of the Public Health Acts would be required in order to provide the necessary powers.

Although the recorded fatalities as set out in the table hereunder, numbering eleven during a period of fourteen years, do not indicate that the risk is extensive, it is considered that it could be considerably minimized by restrictions similar to those which have been adopted in other parts of the world.

The element of risk from the use of potentially dangerous substances by ignorant or unskilful persons, though perhaps at present not great, cannot be lightly regarded, and early legislative action appears to be desirable, as there is a tendency for the use of such substances to become more widespread than hitherto.

Hydrocyanic Acid, HCN, is a colourless liquid. F.P. -14°C; B.P. + 26·1°C. It is soluble in water, alcohol and ether (1). It has a smell of bitter almonds, which may be slight, and which is imperceptible to some people (2). The density of the vapour compared to air is 0·95.

It is combustible, and the liquid in the presence of alkalies undergoes polymerization, (3) (4) with evolution of heat. Liquefied HCN is regarded in America as too dangerous (on account of the risk of explosion) to be carried by common carriers.

HCN is not a disinfectant, but is a powerful agent for destruction of animal and insect life.

Methods of Generation—

(1) From NaCN and H_2SO4. The U.S. Public Health (Quarantine) Regulations prescribe 1 oz. NaCN, 1½ oz. Commercial H_2SO4, and 2 oz. of water as being the best proportions.

Each ounce of NaCN (98 per cent. pure) theoretically will produce 0·45 c. ft. HCN gas in accordance with the equation. $2\ NaCN + H_2SO4 = 2\ HCN + Na_2SO4$, but actually only about half this amount is produced by the ordinary methods (4). The residue is dangerous as it contains varying amounts of HCN.

(2) From NaCN, NaClO3 and H_2SO4. This gives a mixture of HCN and " tear gas " CNCl.

(3) From " Calcium Cyanide " dust in the presence of damp air.

$Ca\ (CN)_2.\ 2\ HCN + 2\ H_2O = 4\ HCN + Ca\ (CH)_2$. Approximately 5 per cent. of the HCN remains in the residue after four hours (4).

(4) From " Zyklon B " a proprietary product of German origin containing HCN with 4 to 10 per cent. Chloropicrin, adsorbed on Kieselguhr. The gases evaporate on exposure to air.

(5) HCN is evolved when celluloid is burned (7) and is present in blast furnace gas and coal gas.

Concentrations Commonly Used—

The American Quarantine Regulations (1920) specify the following strengths of the gas and duration of exposure for destruction of vermin (3).

Vermin.	NaCN per 1,000 c. ft.	Duration of Exposure.	Theoretical gas concentration.
Mosquitoes	0·5 oz.	½ hour	1 in 4372
Fleas	2·5 ,,	½ ,,	1 in 874
Bed bugs	5·0 ,,	1 ,,	1 in 437
Rats and mice	5·0 ,,	2 hours	1 in 437
Lice	10·0 ,,	2 ,,	1 in 218

Diffusion.—Diffusion according to Graham's Law is not the only factor. Convection currents are the main factors in securing distribution of the gas.

As generated from the H_2SO4 and solid NaCN, heat being evolved in the reaction, the gas rises rapidly to the ceiling and descends along the walls (3). If there are draughts, it may go downwards or in other directions into adjoining rooms (4). (See papers 29/36606.) It will penetrate to the centre of a sack of flour in 2 hours (5), but is said not to diffuse readily through small openings into " dead spaces " such as rat runs (4). It will diffuse through a brick wall after some hours.

Physiological Action.—Cyanogen compounds are true protoplasmic poisons in the sense that they arrest the activity of all forms of living matter. They exert an inhibiting action on tissue oxidation presumably by combining with catalysts in the living cells.

The vital functions are suspended only while the cyanide is present; its removal allows a return to normal function, if death has not occurred during the period of oxygen starvation. Cyanide poisoning is a form of asphyxia caused by the arrest of internal respiration.

Cyanide combines with haemoglobin in vitro with difficulty, but readily combines with methaemoglobin to form cyanomethaemoglobin. The combination of cyanide with haemoglobin does not occur in the body except in the presence of methaemoglobin, and hence only as a postmortem change.

The bright red colour of the venous blood in cyanide poisoning is due to the fact that oxygen is not abstracted from the blood in the tissues, and returns to the veins in the arterial condition (7).

The cyanides are rapidly destroyed in the body, combining with sulphur to form sulphocyanides.

Carozzi (1) states that the action of HCN on the higher animals and man is complex. There is a slight local action on the peripheral nerve endings, and a stronger action on the central nervous system—transitory irritation followed by paralysis. With large doses, paralysis of all centres together, without irritating action, results. Death may not ensue for several hours (9).

Action on Animals (3)—

Goats—1 in 1,000 (1·2 mg. per litre) produced unconsciousness in 1 minute and was fatal after 3 minutes.
1 in 5,000 (0·24 mg. per litre) produced unconsciousness in 12 minutes and death in 23 minutes.
1 in 10,000 was apparently harmless.

Dogs— 1 in 3,000 was fatal in 3 minutes.
1 in 11,000 was fatal in 30 minutes.

Man.—The fatal dose of HCN is about 60 mg., or about 1·0 mg. per Kilo of body weight (6). At a concentration of 2 parts per 1,000, a man breathing at 8 litres per minute would breathe this amount of gas in 2½ minutes. He would be rendered unconscious in the first few breaths, and would continue to breathe until death resulted. Five oz. NaCN per 1,000 c. ft. would give this concentration.

A concentration of 0·04 parts of HCN per 1,000 produces slight symptoms after several hours. 0·06 per 1,000 can be inhaled for 1 hour. 0·15 per 1,000 is dangerous in 30 minutes. 3·0 per 1,000 is rapidly fatal.

Symptoms of Poisoning by Hydrocyanic Acid Gas are giddiness, irritation of throat, headaches, faintness, darkness of visual field, confusion and pain in the chest, difficulty in breathing and finally unconsciousness. When the gas is inhaled in large doses immediate unconsciousness results and death follows owing to heart failure, usually preceded by convulsions (3) (9) (10).

Treatment.—If the patient is removed from the toxic atmosphere before death, recovery is usual, without after-effects (3).

A.—If patient is unconscious, and breathing is shallow or has ceased.

(1) Apply artificial respiration at once and continue it steadily.
(2) Give oxygen.
(3) Give 1/10 grain lobeline hydrochloride intra-muscularly.

Hypodermic administration of sodium thiosulphate, 5 per cent., in doses up to 100 c.c. is recommended.

(4) If lobeline is unavailable give atropin gr. 1/25.
(5) When natural breathing starts, discontinue artificial respiration but continue oxygen (2).

Another suggested treatment (8) is—

(1) Give amyl nitrite by inhalation.
(2) Give 10 c.c. of sodium nitrite 3 per cent. in water, intravenously.
(3) Give 50 c.c. of sodium thiosulphate 50 per cent. in water intravenously.

Methylene blue used alone is reported to be comparatively ineffective as an antidote (8) but combined with sodium thiosulphate has some value (11).

B.—If patient is conscious—

Deep breathing, and as far as possible vigorous exercise in the open air should be practised (3).
Give strong coffee, but no alcohol.

C.—If any of the poison has been swallowed—

(1) Give an antidote composed of—
30 c.c. of 23 per cent. ferrous sulphate ($FeSO4$).
30 c.c. of 5 per cent. caustic potash (KOH); add 2 grammes light magnesia (MgO).
(2) Wash out stomach.

Tests for the Presence of HCN—

(1) Smell—not reliable (3).

(2) Chemical tests—Sieverts and Hermsdorff (3) employ two solutions—

(*a*) 2·86 grammes copper acetate in one litre of water.
(*b*) 475 c.c. of a saturated solution of benzidine acetate with 525 c.c. of water.

Equal parts of each solution are mixed shortly before use and the atmosphere is tested with filter paper moistened with the mixed solution.

A concentration of 1 in 10,000 HCN in air turns the paper blue in 7 seconds. One in 100,000 has no effect.

(3) Detection by animals—

Cats, mice and rats are among the most susceptible animals (1).

A concentration of 1 in 1,000 is fatal to rats and cats in 3 minutes.

Cats start mewing and scratching vigorously in concentrations of gas which are harmless to man (3).

ABSORPTION OF HYDROCYANIC ACID GAS BY FOODSTUFFS AND OTHER ARTICLES.

The gas is not absorbed to any great degree by dry foodstuffs. Approximately 1 mg. HCN per 100 grammes was found in certain foodstuffs such as tea, after fumigation (3).

Fruits and leafy and succulent vegetables may take up large quantities of HCN, which is gradually dissipated by ventilation and more rapidly by cooking. Meat and water absorb about 30 mg. HCN per 100 grammes.

Its relatively high rate of solubility in water, however, indicates the advisability of emptying out all drinking water and other beverages directly exposed to the gas during fumigation (4).

Bedding and clothing may absorb dangerous quantities of the gas (3). Bedding, blankets, cushions, etc., should be thoroughly beaten in the open air before being used (2) or exposed in open air from 1 to 2 hours (4).

Hydrocyanic Acid in Residues after Fumigation.—The acid liquor may contain 0·5 per cent. HCN. There is some residual HCN after fumigation by " Calcium Carbide " or " Zyklon B," but usually very little at the end of four hours.

Control by Regulations of Fumigating by Hydrocyanic Acid.—Regulations are in force in the following places, among others—

Brisbane	Regulation 31 of " Poisons Regulations, 1924 " under Health Act.
Pittsburgh (U.S.A.)	v. " Pittsburg's Health," November, 1931, page 84.
Ontario (Canada)	v. Canad. Jl. Pub. Health, October, 1931, page iv.
Germany	v. Bull. Int. Off. Hyg. Pub., October, 1931, page 1749.
Johannesburg (S. Africa) ...	v. Ministry of Health Reports, Pub. H. & Med. Subj. No. 19, 1923, page 55
New York	N.Y. Sanitary Code, 1925. Sec. 104.
Montreal (Canada)	Bull Hyg. City of Montreal, Vol. 19, No. 5, 1933.

TABLE OF THE KNOWN FATALITIES IN NEW SOUTH WALES UP TO 31ST DECEMBER, 1935.
(PAPERS 35/51462.)

Year.	Initials.	Age.	Sex.	Date of Death.	Verdict.
1917	R. J.	27	M	11–2–1917	Asphyxia by Cyanide gas during fumigation.
1921	R. M.	36	M	13–2–1921	,, ,, ,,
1921	A. McC. ...	36	F	19–7–1921	,, ,, ,,
1923	G. E. S. ...	53	M	1–4–1923	,, ,, ,,
1923	W. K. ...	25	M	19–5–1923	,, ,, ,,
1924	B. O'K ...	31	F	2–10–1924	,, ,, ,,
1924	L. J. B. ...	47	M	21–10–1924	,, ,, ,,
1926	J. C.	65	M	17–4–1926	,, ,, ,,
1931	P. W. ...	...	F	8–10–1931	,, ,, ,,
1933	M. G.	21	F	16–5–1933	,, ,, ,,
1935	W. L. P....	19	F	7–10–1935	,, ,, ,,

Of the 11 deaths recorded above, 4 occurred in connection with the fumigation of ships, while 7 have occurred in connection with the fumigation of buildings during the past fourteen years.

References—

(1) Health, vol. vii, 1929, page 104.
(2) Memorandum on Fumigation by HCN—Ministry of Health Publication, February, 1928.
(3) Ministry of Health—Report, P. H. & Med. Subj., No. 19, 1923.
(4) U.S. Public Health Reports, vol. 43, 1928, page 2653.
(5) Am. Jl. Pub. Health, v. 21, 1931, page 632.
(6) Hamilton, A " Industrial Poisons in the United States," 1925.
(7) Henderson and Haggard " Noxious Gases," 1927, page 111.
(8) Am. Jl. Med. Sci., 1934, page 779.
(9) Autenrieth " Detection of Poisons " (1928), page 37.
(10) Thorpe " Dictionary of Applied Chemistry," vol. II., 1921, page 465.
(11) Jl. Am. Med. Ass. v. 102, 1934, page 1743.

SECTION I.

A.—PUBLIC HEALTH ADMINISTRATION.

CHEMICAL LABORATORY.

REPORT OF THE GOVERNMENT ANALYST FOR THE YEAR ENDED 31st DECEMBER, 1935.

Staff.

Government Analyst	Sidney Gilbert Walton, F.A.C.I.
Second Government Analyst	Harold B. Taylor, M.C., V.D., D.Sc., F.I.C., F.A.C.I.
Senior Assistant Government Analyst ...	Arthur D. Dibley, A.S.T.C., A.A.C.I.
Assistant Government Analyst	Robert G. O'Brien, A.S.T.C., A.A.C.I.
Analysts	Ernest S. Ogg, B.Sc., A.A.C.I.
	William F. Fisher, A.S.T.C., A.A.C.I.
	Ronald C. Sparks, A.S.T.C.
	Thomas A. McDonald, A.S.T.C.

Three laboratory assistants; 1 laboratory attendant; 1 clerk (Grace McGlynn); 1 shorthand-writer and typist.

A total of 31,082 samples were examined in the Chemical Laboratory during the year 1935. Although this total represents a decrease of 947 samples in comparison with the highest number previously recorded (viz., 32,029 samples in 1934), the work of the Laboratory actually shows an increase, the decrease in numbers being due to the fact that the total number of milks examined in the Laboratory during 1935 was 1,866 less than the number examined in 1934, while all other branches of the work showed an increase, as specified hereunder :—

	Samples Examined.		Increase in 1935.
	1934.	1935.	
Foods other than Milk	7,311	7,977	666
Drugs under Pure Food Act	96	180	84
Public Services of the State	2,256	2,398	142
			892

Of the total number of samples received, 28,684 were examined for the purposes of the Pure Food Act, and 2,398 for the Public Services of the State.

PURE FOOD ACT.

Milk.—The milks examined in connection with the administration of the Pure Food Act totalled 20,527, representing 14,468 samples collected in the metropolitan area by food, municipal and shire inspectors, 2,608 collected in country districts by the same authorities, and 3,451 submitted by the Milk Board. Of the total milks collected in the metropolitan area by food, municipal and shire inspectors, 1·24 per cent. failed to conform to the standard, as compared with 1·06 per cent. in 1934, and 1·46 per cent. in 1933. The proportion of adulterations in the country milks is the heaviest recorded since 1930, amounting to 5·17 per cent. of the total collected. The proportion of adulterations in the milks submitted by the Milk Board amounted to 3·65 per cent. of the total collected, in comparison with 2·97 per cent. in the previous year. The number of adulterated milks examined during the year was greater than in 1934, being 2·14 per cent. of the total number submitted for examination in comparison with 1·68 per cent. in the previous year.

The following table gives particulars of the whole of the adulterations recorded :—

Particulars of Milk Adulteration.

	Samples Deficient in Fat.		Samples Containing Added Water.		Samples Deficient in Fat and Containing Added Water.		Samples Containing Preservative		Samples Contaminated with Dirt.		Total.	
	No.	Proportion per cent.	No.	Proportion per cent.	No.	Proportion per cent.	No.	Proportion per cent.	No.	Proportion per cent.	No.	Proportion per cent.
Collected in the Metropolitan Area	90	0·62	66	0·45	24	0·16	...	...	...	...	180	1·24
Collected in Country Districts	49	1·87	66	2·53	17	0·65	...	...	3	0·11	135	5·17
Submitted by the Milk Board	61	1·76	53	1·53	7	0·20	5	0·14	...	...	126	3·65
	200	0·97	185	0·90	48	0·23	5	0·02	3	0·01	441	2·14

Freezing Point of Milk.—It has been decided to alter the present freezing point standard of milk from — 0·55° C. to — 0·535° C. As the result of a survey of genuine samples of milk collected in the milk-producing districts under the Milk Act, it was found that occasionally the freezing point of the mixed milk from a herd of cows gave a figure of — 0·535° C., but in no instance did the figure fall between zero and — 0·535° C. It was considered advisable, therefore, to adopt — 0·535° C. as the standard. This lowering of the standard does not signify that the vendor in the past was penalised in any way, as it has been the Departmental practice, since the introduction of the freezing point standard and during the progress of investigations, to allow a tolerance of 3 per cent. It is felt, however, that the amended standard is likely to prove more satisfactory to the trade in general.

The samples other than milk submitted for analysis for the purposes of the Pure Food Act amounted to 8,157, consisting of 7,977 foods and 180 drugs.

Beer.—Samples of all brands of ale, beer, lager, etc., on the market in Sydney were examined for the presence of preservative, with negative results in every instance.

Butter.—A number of samples examined were found to contain water in excess of the maximum amount permitted by Regulation 28. It was found that in some instances this adulteration was due to the re-processing of butter low in water content with an excessive amount of water. This practice is now under strict control, and it is unlikely that there will be a recurrence of the trouble in future.

Cocktail Cherries.—It has been found that the general practice in the trade is to add both colouring and flavouring to cocktail cherries. Regulation 45 (2) permits the addition of colouring matter to dried and crystallised cherries, but makes no provision for the addition of colouring matter to fruits put up in syrup, such as Maraschino and cocktail cherries. The addition of flavouring is not permitted to any fruit.

Essences.—Requests were made during the year for permission to use carbitol and diethylene glycol in the manufacture of essences and imitation essences. Owing to the absence of any evidence to show that these substances are harmless, it was decided for the present not to permit their use.

Honey.—Samples of honey were examined in connection with a complaint as to the use of second-hand tins. Although the interior surfaces were somewhat scratched, the tins were found to be in a perfectly clean condition.

Jam.—During the year a number of samples of jam imported from another State were examined and found to be adulterated by the addition of fruit pulp (apple, and in some cases plum) other than that declared on the label. Prosecutions were issued against the vendors of the adulterated articles, in all cases with successful results. This class of offence continues to give the Department considerable concern, as it places the local manufacturer, who is preparing a genuine article, at a considerable trade disadvantage owing to the low price at which the adulterated article can be sold.

Bacon.—Samples of bacon were examined in connection with a complaint by a medical man that, as a result of the process of curing in use in this State, excessive formaldehyde was present. The complaint was found to be without justification.

Sausage Casing.—A sample of sausages was submitted for examination with a complaint that the skin was of synthetic origin, and became so tough after cooking as to be uneatable. On testing the sample complained of, however, it was found that the skin was of animal origin and was normal in character. Samples of sausages were subsequently obtained from the manufacturer, and upon examination were found to be cased in skins of animal origin free from objection of any kind.

Smallgoods.—A number of samples of smallgoods submitted for analysis were found to be coloured with Armenian bole. This is a prohibited colouring matter which has not been in use for some time past, although its use was common some ten years ago.

Tripe.—It has been found that in this State, for some years past, tripe has been increasingly submitted to a process of bleaching, until at the present time the practice has become almost general in the metropolitan area. This is due largely to the demand by the purchaser for a tripe which is attractive and cleaner in appearance. This effect is undoubtedly produced by the process if it is properly carried out. On the other hand, unskilful treatment frequently results in a tripe slimy and gelatinous in form which tends to disintegrate on boiling. During the year an investigation was undertaken with a view to ascertaining the effect of the treatment on the tripe, and to examine the possibilities of controlled treatment. The treatment consists in—

(*a*) a preliminary scrubbing and boiling;

(*b*) immersion in a peroxide bath;

(*c*) washing the bleached tripe, either with or without the addition of acetic acid.

Samples of untreated and treated tripe were obtained and submitted to analysis, the results of which are summarised hereunder :—

(Analyses made by E. S. Ogg, B.Sc., A.A.C.I.)

Moisture Content of Untreated and Treated Tripe.

Untreated Tripe.		Treated Tripe.	
Moisture.	Number of Samples.	Moisture.	Number of Samples.
Less than 75 per cent.	1	83–85 per cent.	3
75–80 per cent.	18	85–87 per cent.	2
80–85 per cent.	21	87–90 per cent.	6
85–87 per cent.	6	90–92 per cent.	6
87–90 per cent.	7	92–93 per cent.	4
More than 90 per cent.	3		

Summary of Results.

	Untreated Tripe.	Treated Tripe.
Maximum Moisture	92·0 per cent.	92·6 per cent.
Minimum Moisture	66·3 per cent.	83·0 per cent.
Average Moisture	80·7 per cent.	89·1 per cent.

Alkalinity of Soluble Ash of Untreated and Treated Tripe.

Untreated Tripe.		Treated Tripe.	
*Alkalinity of Soluble Ash.	Number of Samples.	*Alkalinity of Soluble Ash.	Number of Samples.
Less than 0·02 per cent.	2	Less than 0·35 per cent.	1
0·02–0·05 per cent.	11	0·35–0·4 per cent.	1
0·05–0·10 per cent.	17	0·4–0·5 per cent.	3
0·10–0·15 per cent.	11	0·5–0·6 per cent.	5
0·15–0·20 per cent.	3	0·6–0·7 per cent.	4
0·20–0·25 per cent.	6	0·7–0·8 per cent.	4
0·25–0·30 per cent.	4	0·8–0·9 per cent.	1
More than 0·30 per cent.	2	0·9–1·0 per cent.	1
		More than 1·0 per cent.	1

Summary of Results.

	Untreated Tripe.	Treated Tripe.
Maximum Alkalinity	0·34 per cent.	1·17 per cent.
Minimum Alkalinity	0·013 per cent.	0·18 per cent.
Average Alkalinity	0·12 per cent.	0·63 per cent.

* The alkalinity of the soluble ash was calculated as Na_2O on the water-free tripe.

From the above analyses it will be seen that the process results in—

(1) a decrease of approximately 50 per cent. of solid matter in the tripe (*i.e.* 1 lb. of tripe before treatment weighs approximately 2 lb. after treatment) ; and

(2) an increase in the soluble alkalinity, which has a marked yellowing effect on onions which are commonly used in the cooking of the tripe.

On the other hand, prolonged boiling in the preparation of untreated tripe results in a similar product as regards the decrease of solid content, as will be seen from the following table :—

(Analyses made by E. S. Ogg, B.Sc., A.A.C.I.)

Sample Mark.	Moisture per cent.	Alkalinity of Soluble Ash calculated as Na_2O on water-free tripe.	Remarks.
		Per cent.	
"A"	84·4	0·013	Tripe prior to treatment.
"B"	87·9	0·013	Tripe from the same piece as "A" boiled for a further 1½ hours by the manufacturer.
"C"	87·3	0·014	Sample "A" boiled for a further 1½ hours in the Laboratory.
"D"	92·5	0·56	Sample "A" after treatment.

Investigations were further carried out on the pH value of untreated and treated tripe, as a result of which it was found that the pH value of 12 samples of untreated tripe ranged from 7·0 to 7·1, while the pH value of 24 samples of treated tripe ranged from 9·4 to 10·8.

An experiment was carried out with a view to removing the whole of the alkalinity found in the tripe, but this was found to be impracticable since it could only be accomplished by prolonged soaking in acetic acid.

From the foregoing it will be seen that the treatment of tripe by the peroxide process can be readily detected by the determination of its water content, soluble alkalinity and pH value. The treatment may be controlled analytically by prescribing a maximum water content and a maximum figure for the alkalinity of the soluble ash calculated on a water-free basis. This, however, does not appear to be a practicable proposition for the trade.

" *Digestive* " *Tea.*—A sample of " digestive " tea was submitted for examination in regard to special claims made that, owing to the reduction in the injurious tannin content, this tea might be freely used without harmful results to the digestion. For purposes of comparison, practically the whole of the different brands of tea sold on the market were examined, and it was found that the tannin content of the " digestive " tea was no less than that of the ordinary teas for which no special claim is made. As a result of representations made by the Department, the manufacturers agreed to delete from the labelling the special claims made regarding the digestive properties resulting from the alleged lowering of the tannin content.

Tomato Products —(*a*) *Tomato Puree and Tomato Paste.*—The increased use in New South Wales of tomato puree and tomato paste, and the wide variation in the composition and labelling of these articles, rendered the formulation of a standard necessary. With this end in view, analyses of a number of commercial products were carried out, the results of which are given hereunder :—

(Analyses made by E. S. Ogg, B.Sc., A.A.C.I.)

Sample Mark.	Commercial Description of Sample.	Mold Count.	Total Solids.	Sugars.	Ash.	Sodium Chloride.
		%	%	%	%	%
" A "	Concentrated Puree..................	22	30·2	13·0	10·2	2·5
" B "	Double Concentrated Conserve...	25	44·1	15·5	8·7	0·6
" C "	Triple Concentrated Conserve...	50	9·6	3·8	1·3	0·3
" D "	Tomato Puree	50	10·9	5·1	3·2	0·3
" E "	Triple Concentrated Puree	50	19·5	7·3	3·4	1·3
" F "	Concentrated Puree..................	30	16·4	8·1	2·5	0·27
" G "	Concentrated Puree, 8 to 1	13	35·3	17·1	4·4	0·72
" H "	Concentrated Puree..................	44	25·3	11·4	4·9	0·35

One sample was artificially coloured.

No farinaceous substance was present in any of the samples.

The mold count represents the percentage of fields positive as determined by the A.O.A.C. Official Method.

From these figures it appears desirable to frame a standard for tomato puree and tomato paste requiring the declaration on the label of the amount of tomato solids present, and including provision for uniform labelling conditions.

(*b*) *Tomato Pulp.*—Regulation 35 (2) of the Pure Food Act requires that tomato sauce should be prepared from sound and ripe tomatoes. An examination, however, of the mold content of the proprietary brands of tomato sauce on the Sydney market indicated that a large proportion was made from unsound stock. A summary of the tomato sauces examined in this Laboratory in regard to the mold content is given below :—

(Analyses made by E. S. Ogg, B.Sc., A.A.C.I.)

Mold Count. (A.O.A.C. Official Method.)	Number of Samples.
Below 25 per cent. of fields positive	12
25 to 50 per cent. of fields positive	8
50 to 70 per cent. of fields positive	11
70 to 90 per cent. of fields positive	10
90 to 100 per cent. of fields positive	6

With a view, therefore, to ascertaining how the mold content of the pulp compared with the quality of the stock used a series of investigations were carried out. These included inspection of the various pulping plants and the stock used, and the subsequent examination of the pulp. The following are the analytical results :—

Factory.	Plant.	Stock.	Sorting.	Non-sugar Organic Tomato Solids per cent.	Mold Count. (A. O. A. C. Official Method.)
No. 1	Clean	Poor quality (large proportion of rot).	Haphazard	4·1 6·4	40 per cent. fields positive 50 ,, ,, ,,
No. 2	Very clean...	,, ,, ...	Thorough sorting and trimming.	......	8 ,, ,, ,, 7 ,, ,, ,,
No. 3	Clean	Good quality	Efficient	2·3 4·1	10 ,, ,, ,, 15 ,, ,, ,,
No. 4	Clean	Poor quality (large proportion of rot).	Haphazard	1·3 2·3 2·5	57 ,, ,, ,, 96 ,, ,, ,, 45 ,, ,, ,,
No. 5	Clean	Very poor quality (large proportion of rot).	Practically nil	......	100 ,, ,, ,, 92 ,, ,, ,,

From the above it is evident that by the use of good stock, accompanied by efficient sorting and trimming, no difficulty should be experienced in producing tomato sauce, the mold count of which does not exceed 25 per cent. of fields positive. In order, however, to allow a generous margin to meet varying seasonal conditions, it is proposed to introduce a standard imposing a maximum mold count of 50 per cent. of fields positive.

Fruit Wines.—An examination of several varieties of so-called fruit wine was carried out, and it was found that, with one exception, the whole of the samples examined were prepared from ordinary grape wine with the addition of fruit essences or imitation fruit flavours. The addition of these essences and flavours constitutes a breach of the Wine Adulteration Act, and, upon the attention of the vendors being called to this fact, it was decided that in future the more appropriate designation of cocktail would be used to describe these articles.

Bay Rum.—The 1923 edition of the British Pharmaceutical Codex incorporated a standard for bay rum, but apparently no specific standard has been included in the 1934 edition of the Codex. As a result of an investigation regarding the nature of the bay rum being sold at the present time in this State it was found that over 50 per cent. of the samples examined were grossly deficient in alcohol, oil content, etc., as compared with the 1923 Codex standard. It would appear desirable, therefore, to frame a regulation for this article under the Pure Food Act.

Camphorated Oil.—Samples received for analysis were found to be prepared with arachis oil. This, strictly speaking, is a contravention of the standard, as the 1932 edition of the British Pharmacopoeia does not permit the use of this oil. In view of the fact, however, that this oil is said to be particularly suitable for Australian conditions, and as its use was permitted by the 1914 edition of the Pharmacopoeia, the samples in question were not regarded as adulterated. It has been recommended that the use of arachis oil be permitted, since the quality of camphorated oil is in no way lowered by the use of arachis oil.

Citronella Compound.—A complaint was lodged in regard to the quality of certain cheap citronella compounds being sold. On comparison with a reputable brand, it was found that the cheap compound contained only approximately one-third the quantity of citronella oil. No standard, however, is in force for this article.

Cough Medicines.—In response to complaints made by a section of the trade that certain of the cheaper class of shops were selling at low prices Compound Syrup of White Pine with Tar which did not contain the essential therapeutic ingredients, a number of samples representative of most of the brands on the market were examined. It was found that not one of the samples analysed conformed to the formula of the British Pharmaceutical Codex for "Compound Syrup of White Pine." The better class of medicine in every instance contained ingredients not included in the Codex formula, such as morphine, tartarated antimony, etc., while the cheaper articles were deficient in the ingredients prescribed by the Codex.

Spirits.—Prior to 1935, practically no samples of spirits had been submitted for analysis by the Metropolitan District Licensing Inspector for a period of nine years. On the recommendation of the Government Analyst, samples of spirits were collected and submitted for examination towards the close of the year. Of 25 samples examined, 2 were found to be adulterated, thus showing the necessity for constant supervision.

Particulars of Adulteration.—A total of 732 samples (9·17 per cent.) of foods other than milk contravened the requirements of the Pure Food Act, while 4·44 per cent of the drugs did not conform to standard. These are the lowest percentages of adulterations which have yet been recorded. The following table gives particulars of the adulterations :—

Particulars of Adulterations.

Nature of Sample.	Number of Adulterated Samples.	Particulars of Adulteration.
Beans, canned	1	Artificially coloured with copper.
Bread	1	Excess water.
Brine	24	Foreign matter and impurity.
,, ...	1	Contained boric acid and formalin.
Butter............................	2	Deficient in milk-fat and contained excess water.
,, ...	1	Contained excess water.

Particulars of Adulterations—continued.

Nature of Sample.	Number of Adulterated Samples.	Particulars of Adulteration.
Cherries, cocktail	4	Artificially coloured and flavoured.
Coffee extract	2	Deficient in caffeine.
Confectionery	2	Contained excess alcohol.
Cordials and beverages	8	Deficient in fruit juice.
,, ,,	2	Deficient in fruit juice and artificially coloured.
,, ,,	8	Artificially coloured and flavoured.
,, ,,	3	Illegal addition of foreign substances.
,, ,,	1	Illegally preservatised.
,, ,,	4	Did not declare presence of preservative on label.
,, ,,	3	Contained saccharin.
,, ,,	1	Contained excess of proof spirit.
Cream	4	Deficient in milk-fat.
Essence, imitation lemon	1	Deficient in citral.
Fish, fresh	1	Unfit for human consumption.
,, salt	15	Contained a preservative substance.
,, tinned	1	Deteriorated and unfit for consumption.
,, ,,	10	Excessive metallic contamination.
,, paste	1	Deteriorated and unfit for consumption.
,, ,,	3	Presence of artificial colour not declared on label.
,, ,,	1	Contained prohibited colouring matter.
Flour, self-raising	4	Deficient in carbon dioxide.
Fruit, fresh	1	Contaminated with copper.
Honey	1	Contaminated with dirt.
Ice-cream	4	Deficient in milk-fat.
,,	2	Deficient in milk-fat and contained starch.
,,	1	Contained starch.
Jam	1	Deteriorated and unfit for consumption.
,,	16	Contained considerable quantities of foreign fruit pulp.
Junket essence	1	Contained boric acid.
,,	6	Contained boric acid, artificial colouring, and artificial flavouring.
Lemon butter	1	Contained starch.
Meat	136	Illegally preservatised.
,, "smoked"	4	Artificially coloured.
Tripe	15	Illegally preservatised.
Meat, minced	201	Illegally preservatised.
Sausages, raw	177	Contained excess of permitted preservative.
Smallgoods	7	Contained prohibited colour.
,,	1	Contained aniline dye.
,,	4	Contained illegal preservatives and artificial colour (aniline dye).
,,	1	Contained illegal preservative.
,,	4	Contained excess starch.
,,	1	Contained excess of permitted preservative.
Meat pastes	1	Deteriorated and unfit for consumption.
,,	3	Artificially coloured (aniline dye).
Milk	200	Deficient in milk-fat.
,,	185	Contained added water.
,,	48	Deficient in milk-fat and contained added water.
,,	5	Contained preservative.
,,	3	Contaminated with dirt.
,, condensed	4	Deteriorated and unfit for consumption.
Olive oil	1	Not olive oil.
Peas, canned	1	Artificially coloured with copper.
Pickles	5	Contained saccharin.
,,	3	Contained excess of permitted preservative.
,,	1	Deteriorated and unfit for consumption.
Spirits	2	Contained excess added water.
Tomato sauce	2	Artificially coloured.
Wine	1	Contained excess sulphurous acid.
,, "fruit"	12	Contained added flavouring substances.
Yeast	1	Inactive.
Vegetables	1	Contained arsenic in excess of maximum permitted.
Drugs—		
Eucalyptus oil	2	Insoluble in 5 vols. of alcohol.
,,	1	Did not comply with the limit of phellandrene test.
Lysol	1	Deficient in cresol.
Medicines, patent	1	Contained less than declared amounts of drugs.
,, ,,	2	Did not declare proportion of drug present.
Mutton bird oil emulsion	1	Contained less than amount of oil declared.
Total	1,181	

Samples Submitted for the Public Services of the State.

The samples examined for the Public Services of the State numbered 2,398, particulars of which are as follow:—

Subsidised Institutions Submitted 217 *Samples.*—These included foodstuffs for examination as to quality, drugs *re* purity and conformity to Pharmacopoeial standards, cows' milk with a view to the control of dairy herds, human milk in connection with questions of infant feeding, human bone in regard to the diagnosis of disease, viscera and blood in connection with deaths, etc.

Government Stores Department.—The Government Stores Department forwarded 657 samples for examination, embracing drugs, foods, soaps, and cleansing powders, inks, disinfectants, lubricants, solder, waterproof material, etc., for the control of supplies under contract, and with a view to the formulation of suitable specifications for the extended range of articles necessary for the varied requirements of the Public Service.

Pharmacy Board.—In connection with the administration of the Poisons Act in this State, only two samples were submitted by the Pharmacy Board during the year.

Police Authorities forwarded 404 exhibits for examination in connection with criminal investigations, 8 of which were submitted by the Drugs Branch.

In a case of suspected incendiarism, samples of soil were submitted with a view to determining whether certain bush fires had been caused deliberately or accidentally. As the result of analysis, considerable quantities of sodium carbonate and sodium nitrate were found to be present. Unless the ground had previously been heavily fertilised with a fertiliser containing sodium nitrate it is probable that the fires were deliberately started.

An unusual case of suspected murder was under investigation during the year, in which the only exhibit by which a clue might be obtained as to the identity of the victim was a human arm. This had been recovered from a suburban bathing pool in which a shark had been in captivity for some days for exhibition purposes. The arm was submitted for chemical examination as to the presence of poisonous or preservatising substances. The examination was rendered necessary because it was thought possible early in the investigation that the arm might be an anatomical specimen. No evidence of the presence of poison or preservative was obtained, and the exhibit was identified as belonging to a missing person. In connection with the case, one of the principal witnesses who was to have given evidence at the inquest was murdered just prior to the opening of the inquiry. An overcoat which the deceased was wearing at the time he was murdered was forwarded to the Laboratory, and, as a result of the examination, it was concluded that the revolver with which the fatal shots were fired was only from 12 to 24 inches away from the victim at the time of firing.

In the case of a death due to a man being knocked down by a motor car, the hat and clothing of the victim were submitted for examination to determine whether certain stains on these exhibits were similar to the duco paint on the car suspected of being concerned in the accident. As the result of the examination it was found that the stains on the hat and clothing were identical with the duco on the mudguard of the car.

The following table gives particulars of the exhibits submitted in connection with the criminal charges investigated :—

Criminal Investigations.	
Conspiracy to defraud	7 exhibits.
Malicious damage to property ...	4 ,,
Destruction of protected animals...	2 ,,
Counterfeit coining	12 ,,
Animal poisoning	11 ,,
Selling intoxicant without license..	1 ,,
Suspected attempted poisoning ...	53 ,,
Attempted murder	10 ,,
Charges of murder	15 ,,
Abortifacients (*re* deaths in hospital)	2 ,,
Illegal operations	12 ,,
Assault and robbery	7 ,,
Criminal Investigations—continued.	
Breaking, entering and stealing ...	14 exhibits.
Assault	1 ,,
Incendiarism	5 ,,
Uncertified deaths	240 ,,
Drugs.	
Atoxicocaine	1 ,,
Cannabis indica	1 ,,
Cocaine	1 ,,
Luminal	4 ,,
Veronal	1 ,,
	404 exhibits.

Coroners' Inquiries.—Coroners submitted exhibits, details of which are given hereunder, in connection with 93 deaths which formed the subject of coroners' inquests and police investigations. In 76 cases, the viscera, consisting usually of the stomach and contents and the solid organs, were examined for poisons, in 4 cases viscera and blood and urine were examined, the viscera for poisons and the blood and urine for the alcohol content; in 11 cases blood and urine were examined for alcohol, and in 2 cases blood was examined for confirmation of the diagnosis of death by drowning. In addition, police authorities required the examination of 240 exhibits of miscellaneous character in connection with these deaths.

In one case, which formed the subject of a charge of murder, a woman administered lead arsenate to her husband in his food. Death did not take place until from four to five weeks after the administration of the poison. The exhibits submitted were examined by Dr. H. B. Taylor, with the following results :—

Nature of Exhibit.	Weight of Exhibit.	Lead Found.	Arsenic Found.
Liver	3 lb. 14 oz.	5·6 mgms.	0·10 mgm.
Hair	2·0 grammes.........	....	4·0 mgms. per 100 grammes.
Nails and cuticle	2·0 grammes.........	....	3·0 mgms. per 100 grammes.
Bones	800 grammes	4·0 mgms. per 100 grammes	....

An unusual case of strychnine poisoning was brought under notice during the year. The deceased took several fits over a period of approximately 15 hours. The medical officer attending the deceased at this time diagnosed the case as one of strychnine poisoning, the patient being removed to hospital for treatment. Death took place approximately forty-eight hours after the first fit. Exhibits were submitted to the Laboratory for examination, and, despite every precaution being taken to detect the presence of strychnine, none could be found either in the stomach or in the organs. At the inquest, the coroner, on the medical evidence, brought in a verdict of death from strychnine poisoning. From a check of the hypodermic strychnine tablets which were kept on the premises occupied by the deceased it appeared that the maximum amount of strychnine which could have been taken was 0·4 grain. Apparently, in the forty-eight hours elapsing between the taking of the strychnine and death the whole of the alkaloid was either eliminated or destroyed, as not even the most minute trace could be detected in the analysis.

As a number of cases of coroners' inquiries were concerned with motor-car accidents, in which it was necessary to determine whether the victims had consumed liquor prior to the accidents, it was decided to conduct an investigation, in conjunction with the Government Medical Officer for Sydney, Dr. A. A. Palmer, as to the relative amounts of alcohol likely to be found in the blood and urine of persons consuming varying quantities of different types of liquor. The result of such investigation will be found in the Appendix to this report.

The following are the results of the examination of exhibits of viscera, urine and blood submitted :—

Particulars of Exhibit.	Result of Examination.	Number of Samples.
Viscera	Arsenic and Lead	1
"	Atropine, Belladonna and Chloroform	1
"	Barbitone	1
"	Chloral Hydrate	1
"	Carbolic Acid	1
"	Cyanide	9
"	Dial (Diallyl Barbituric Acid)	1
"	Didial (Diallyl Barbituric Acid and Ethyl Morphine)	1
"	Ether	1
"	Lead	1
"	Luminal	2
"	Lysol	2
"	Morphine	2
"	Nicotine	3
"	Quinine	1
"	Strychnine	12
"	Negative for poisons	36
Viscera and Blood	Strychnine in viscera; positive for alcohol in blood	1
" "	Negative for poison in viscera; positive for alcohol in blood	1
" "	Negative for poison in viscera and for alcohol in blood	1
Viscera and Urine	Negative for poison in viscera; positive for alcohol in urine	1
Urine	Positive for alcohol	4
"	Negative for alcohol	1
Urine and Blood	Positive for alcohol	4
Blood	Positive for alcohol	2
"	Positive for drowning	2
		93

Animal Viscera.—Two exhibits of animal viscera were received for examination, strychnine being present in each case.

Waters and Sewages.—Departmental and municipal authorities submitted 405 samples of water in connection with the control and chemical treatment of country water supplies, swimming pools, etc., and 114 samples of sewage in connection with the supervision of sewage installations and the drainage and discharge of effluents and trade wastes into public places, etc.

Pollution of Beach Sands.—During the year an investigation was carried out by Dr. H. B. Taylor in regard to the pollution of beaches due to use by the public.

The method of determining the pollution was as follows :—A sample of sand was shaken up at frequent intervals with an equal amount of distilled water, the sand allowed to settle, and the supernatant liquid analysed as for water analysis.

The figures for organic nitrogen and turbidity were found to be of the most value when considering the amount of pollution in regard to beach load. From the results obtained it is considered that the organic nitrogen figure for beach sands which are unpolluted should not exceed 0·02 part per 100,000 parts of wash water; the figure for beach sands which are polluted to a small extent should not exceed 0·10 part per 100,000 of wash water, while excessive pollution is indicated if the figure exceeds 0·20 part per 100,000 parts of wash water.

Industrial Hygiene authorities submitted 337 specimens for examination in connection with claims under the Workers' Compensation Act, and the diagnosis of illness due to occupational causes. These included urine for examination as to lead content; hair, nails and urine for examination as to presence of arsenic; dust, powder, paint, soil, etc., submitted for examination in connection with enquiries in regard to conditions of employment. Details of the whole of the specimens will be found in Table II.

Miscellaneous Authorities submitted 167 samples for examination, embracing flock, rags, etc., *re* the formulation of standards for bedding materials, dust *re* metallic contamination, drugs, foods, paints, stomach lavage *re* diagnosis of illness, animal viscera, etc.

Full particulars of all samples examined are given in the attached tables.

Appended hereto is a report of an investigation in regard to the relative amounts of alcohol likely to be found in the blood and urine of persons consuming varying quantities of different types of liquor.

S. G. WALTON,
Government Analyst.

TABLE I.—Samples examined during the year 1935 for the purposes of the Pure Food Act.

Nature of Sample.	Submitted by.	Samples.	
		Number Examined.	Number Adulterated or Falsely Described.
A.P.C. Powders	Food Inspectors	2	0
Aspirin Tablets	,, ,,	8	0
Bacon	,, ,,	8	0
Bay Rum	,, ,,	13	0
Beans, Canned	,, ,,	2	1
Beer	,, ,,	37	0
Bread	,, ,,	13	1
Brine	,, ,,	25	25
Butter	,, ,,	32	3
Camphorated Oil	,, ,,	5	0
Carbitol	,, ,,	1	0
Cheese	,, ,,	25	0
Cherries, Cocktail	,, ,,	4	4
,, Fresh	,, ,,	1	0
Citronella Compound	,, ,,	2	0
Cod Liver Oil Emulsion	,, ,,	1	0
Coffee	,, ,,	3	0
,, and Chicory	,, ,,	11	0
,, Extract	,, ,,	2	2
,, and Chicory Extract	,, ,,	17	0
Confectionery	,, ,,	6	2
Contraceptive	,, ,,	1	0
Cordials	,, ,,	78	30
Cream	,, ,,	117	0
,,	Milk Board	173	4
Cream Neutraliser	Food Inspectors	1	0
Cream of Tartar	,, ,,	6	0
Curry Powder	,, ,,	1	0
Diethylene Glycol	,, ,,	1	0
Disinfectants	,, ,,	7	1
Dripping	,, ,,	7	0
Egg Pulp	,, ,,	3	0
Essences	,, ,,	19	1
Eucalyptus Oil	,, ,,	13	3
Face Cream	,, ,,	1	0
Fish, Fresh	,, ,,	10	1
,, Salt	,, ,,	21	15
,, Tinned	,, ,,	75	11
,, Smoked	,, ,,	6	0
,, Oysters	,, ,,	4	0
,, Prawns	,, ,,	16	0
,, Paste	,, ,,	20	5
Flour, Self-raising	,, ,,	64	4
Fruit, *re* Spray	,, ,,	9	1
Honey	,, ,,	10	1
Hydrogen Peroxide	,, ,,	1	0
Ice Cream	,, ,,	75	7
Icing Sugar	,, ,,	1	0
,, Mixture	,, ,,	1	0
Jam	,, ,,	52	17
Junket Essence	,, ,,	7	7
Lemon Butter	,, ,,	16	1
Macaroni	,, ,,	10	0
Malt Extract	,, ,,	1	0
Margarine	,, ,,	5	0
Meat, Fresh	,, ,,	1,019	140
,, ,,	Municipal Inspectors, Country Districts	2	0
,, Tripe	,, ,, ,, ,,	17	0
,, ,,	Food Inspectors	675	15
,, Minced	,, ,,	1,662	195
,, ,,	Municipal Inspectors, Country Districts	37	6
,, Sausages	,, ,, ,, ,,	96	5
,, ,,	Food Inspectors	3,061	172
,, Smallgoods	,, ,,	205	17
,, ,,	Municipal Inspectors, Country Districts	8	1
Sausage Casing	Food Inspectors	1	0
Meat Pastes	,, ,,	8	4
Medicines	,, ,,	33	3
Milk, *re* Standard	Food Inspectors, Metropolitan District	11,425	160
,, ,,	Municipal Inspectors, Metropolitan District	3,043	20
,, ,,	Food Inspectors, Country Districts	786	60
,, ,,	Municipal Inspectors, Country Districts	1,822	75
,, ,,	Milk Board	3,451	126
,, Condensed	Food Inspectors	30	4
Mustard	,, ,,	16	0
Mutton Bird Oil	,, ,,	1	1
Olive Oil	,, ,,	16	1
Ointment, Zinc	,, ,,	3	0
Paraffin, Liquid	,, ,,	12	0
Peas, Canned	,, ,,	7	1
Pepper	,, ,,	9	0
Pickles	,, ,,	38	9

TABLE I.—Samples examined during the year 1935 for the purposes of the Pure Food Act—*continued.*

Nature of Sample.	Submitted by.	Samples.	
		Number Examined.	Number Adulterated or Falsely Described.
Potatoes	Food Inspectors	1	0
Starch Admixture for Sausages	,, ,,	1	0
Soap	,, ,,	18	0
Soda Bicarbonate	,, ,,	7	0
Spirits	,, ,,	25	2
Tea	,, ,,	11	0
,, Tree Oil	,, ,,	7	0
Tomato Pulp	,, ,,	10	0
,, Sauce	,, ,,	7	2
Tooth Paste	,, ,,	4	0
Vinegar	,, ,,	27	0
Wine	,, ,,	23	13
Yeast	,, ,,	1	1
Vegetables, *re* Spray	,, ,,	9	1
	Total	28,684	1,181

TABLE II.—Samples examined during the year 1935 for the Public Services of the State.

Authority Submitting.	Nature of Sample.	Number of Samples.
Subsidised Institutions.	Bread	9
,, ,, ...	Blood	1
,, ,, ...	Bone (Human)	1
,, ,, ...	Coffee	2
,, ,, ...	Dress (*re* stains)	1
,, ,, ...	Ether (Anaesthetic)	2
,, ,, ...	Honey	1
,, ,, ...	Jam	3
,, ,, ...	Maizemeal	1
,, ,, ...	Meat	67
,, ,, ...	Milk, Fresh	84
,, ,, ...	,, Human	33
,, ,, ...	Mutton Bird Oil	1
,, ,, ...	Oatmeal	1
,, ,, ...	Peas	1
,, ,, ...	Sago	1
,, ,, ...	Sauce	2
,, ,, ...	Tablets, Morphine	1
,, ,, ...	Vomit	1
,, ,, ...	Wheatmeal	1
,, ,, ...	Viscera (Human)	3
Government Stores Department.	Adrenalin Chloride Solution	4
,, ,, ...	A.P.C. Tablets	9
,, ,, ...	Aspirin Tablets	3
,, ,, ...	Ammonia	1
,, ,, ...	Boots	2
,, ,, ...	Bread	3
,, ,, ...	Cascara Sagrada	1
,, ,, ...	Chicory	25
,, ,, ...	Chloroform	4
,, ,, ...	Cleansing Powder	1
,, ,, ...	Coffee	7
,, ,, ...	,, and Chicory	2
,, ,, ...	Collodion	2
,, ,, ...	Creosote	1
,, ,, ...	Cudahy Powder	1
,, ,, ...	Digitalis Tincture	1
,, ,, ...	Disinfectants	124
,, ,, ...	Essences	14
,, ,, ...	Gentian (Compound Infusion)	2
,, ,, ...	Hydrogen Peroxide	3
,, ,, ...	Ink	52
,, ,, ...	Insecticides	13
,, ,, ...	Kerosene	2
,, ,, ...	Lime	1
,, ,, ...	Linseed Meal	1
,, ,, ...	,, Oil	4
,, ,, ...	Liquorice	1
,, ,, ...	Lubricants	263
,, ,, ...	Magnesium Carbonate	1
,, ,, ...	Meat	1
,, ,, ...	Olive Oil	1
,, ,, ...	Ointments	8
,, ,, ...	Paraffin Oil	1
,, ,, ...	Parrish's Food	1
,, ,, ...	Paste, Adhesive	6
,, ,, ...	Plaster of Paris	1

Authority Submitting.	Nature of Sample.	Number of Samples.
Government Stores Department	Polish, Metal	2
	Senega (Concentrated Infusion).	1
,, ,, ...	Soap	43
,, ,, ...	Sodium Carbonate	1
,, ,, ...	,, Sulphite	1
,, ,, ...	Solder	6
,, ,, ...	Stockholm Tar	5
,, ,, ...	Thermometers	1
,, ,, ...	Tolu, Solution of	1
,, ,, ...	Tragacanth	1
,, ,, ...	Waterproof Sheeting	27
,, ,, ...	Zinc Oxide	1
Pharmacy Board ...	Bipalatinoid Tablets	1
,, ,, ...	Liquid Disinfectant	1
Police Department	Criminal Investigations	404
,, ,,	Human Viscera, Blood and Urine.	93
,, ,, ...	Animal Viscera	2
Departmental and Other Authorities.	Water	405
,, ,, ...	Sewages	114
Industrial Hygiene Authorities.	Cement Powder	1
,, ,, ...	Dressing from Cotton Material	1
,, ,, ...	Dust	15
,, ,, ...	Enamel	1
,, ,, ...	Ferromanganese	1
,, ,, ...	Flux	1
,, ,, ...	Gas Masks	3
,, ,, ...	Hair (Human)	49
,, ,, ...	Muriatic Acid	1
,, ,, ...	Nails (Human)	4
,, ,, ...	Powder (from Printing Works)	1
,, ,, ...	Pyrolusite	1
,, ,, ...	Soil, Sludge, etc.	35
,, ,, ...	Sulphuric Acid	1
,, ,, ...	Urine	206
,, ,, ...	Post-mortem Specimens	12
,, ,, ...	Viscera (Animal)	4
Miscellaneous Authorities.	Alumino Ferric	1
,, ,, ...	Alum	1
,, ,, ...	... Aluminium Alloy	1
,, ,, ...	Beans	1
,, ,, ...	Chloroform	1
,, ,, ...	Clinic Emulsion	1
,, ,, ...	Cocoanut	1
,, ,, ...	Disinfectants	6
,, ,, ...	Dust (*re* metallic contamination).	2
,, ,, ...	Faeces	4
,, ,, ...	Flock, Rags, etc. (*re* standard)	54
,, ,, ...	Fluid from Cyst	1
,, ,, ...	Hair for Mattress Making	2
,, ,, ...	Kapok	5
,, ,, ...	Medicine	3
,, ,, ...	Milk, Dried	2

TABLE II.—Samples examined during the year 1935 for the Public Services of the State—*continued.*

Authority Submitting.	Nature of Sample.	Number of Samples.	Authority Submitting.	Nature of Sample.	Number of Samples.
Miscellaneous Authorities	Mosquito Stick	1	Miscellaneous Authorities	Whisky	1
	Paint	1		Vegetables	25
,, ,, ...	Rubber Solution	3	,, ,, ...	Veronal Tablets	3
,, ,, ...	Sand (*re* pollution of beaches)	22	,, ,, ...	Viscera (Animal)	3
,, ,, ...	Soda Ash	2	,, ,, ...	Zinc Oxide	2
,, ,, ...	Spinal Fluid	1	,, ,, ...	Soil (*re* pollution by trade wastes).	4
,, ,, ...	Stomach Lavage	1			
,, ,, ...	Walipaper	1			
,, ,, ...	Water	11		Total	2,393

APPENDIX.

Determination of the quantity of Alcohol contained in Human Urine and Blood after the administration of definite quantities of alcoholic liquids.

(By S. G. WALTON, F.A.C.I., and R. G. O'Brien, A.S.T.C., A.A.C.I., in association with the Government Medical Officer for Sydney, Dr. A. A. Palmer.)

As the result of various Coroners' inquiries, it was found necessary to ascertain, from an examination of either the urine or the blood, the approximate alcoholic condition of individuals concerned in accidents. Whilst this subject has been widely investigated by E. Mellanby (1), H. W. Southgate and G. Carter (2), and J. Evans and A. O. Jones (3), it was considered desirable, for Court purposes, to conduct an investigation in New South Wales. In conjunction with the Government Medical Officer for Sydney, Dr. A. A. Palmer, an investigation was therefore undertaken into the relationship existing between the amount of alcohol consumed and the amount contained in the urine and in the blood, at definite intervals of time after consumption, using different patients and different types of alcoholic liquors. The patients selected were of different ages, from 25 to 54 years, and the body weights ranged from 125 to 174 lb. The personal history varied from almost total abstainer to moderate drinkers.

Method of Analysis.

As the particular apparatus described by Dr. Southgate was not available, a modification embodying a much simpler type of apparatus, and one which is available in most chemical laboratories, was used, particulars of which will be found in the method detailed hereunder.

The chemical reagents used were N/5 potassium dichromate solution and concentrated sulphuric acid, as used by Dr. Southgate.

Method for Urine.—100 ml. of urine is placed in a 300 ml. Jena distillation flask, rendered acid by the addition of 1 ml. of 1 : 3 sulphuric acid, and distilled through a glass 10 c.m. Davies double surface condenser, the distillate being collected in a 70 ml. flask surrounded by ice. The rate of distillation is approximately 2 ml. per minute, pipeclay being added to the distilling flask to prevent bumping. After 60 ml. have been distilled, the distillate is rendered alkaline by the addition of a slight excess of solid sodium carbonate. The distillate is transferred to a 100 ml. Jena distillation flask, and the 70 ml. receiving flask is washed out twice with portions of 3 and 2 ml. of distilled water, respectively. These washings are also transferred to the 100 ml. distillation flask. The contents of the flask are then distilled through a glass 10 c.m. Davies double surface condenser as previously, the rate of distillation being approximately 1·5 ml. per minute. The distillate is collected in a 70 ml. flask surrounded by ice. After 40 ml. have been collected, the distillate is transferred to a 100 ml. Jena distillation flask, using two portions of 3 and 2 ml. of distilled water, respectively, for washing purposes. These washings are transferred to the 100 ml. distillation flask. The liquid is distilled from neutral solution through the same condenser and received in an accurate 50 ml. measuring cylinder surrounded by ice, 30 ml. of distillate being collected. The rate of distillation is approximately 1·5 ml. per minute. This method of distillation and concentration of the alcohol follows the method adopted by A. O. Gettler, J. N. Niederl, and A. A. Benedetti-Pichler (4).

A suitable quantity of the final distillate, varying from 1 to 10 ml. according to the alcoholic strength (usually 1 and 2 ml. being used), is added to a 100 ml. acetylisation flask (which is fitted with a ground glass condensation tube 1 metre long and aproximately 1 centimetre in diameter) containing 15 ml. of a cooled mixture of N/5 potassium dichromate solution and 20 ml. of concentrated sulphuric acid. The flask is immersed in a water bath kept at a temperature of 78 to 80 degrees C. for 25 minutes. It is then removed from the bath and the contents transferred to a 600 ml. flask. The acetylisation flask is washed 3 times, with 2 portions each of 100 ml. and 1 portion of 50 ml. of distilled water, respectively, and the washings added to the 600 ml. flask. The contents of the flask are cooled quickly to room temperature, and a further 230 ml. of distilled water added, making an approximate volume of 500 ml. About 1 gramme of solid potassium iodide is now added and the liberated iodine is titrated with N/10 sodium thiosulphate solution, starch being used as indicator.

1 ml. N/10 $Na_2S_2O_3$=·00115 gramme absolute alcohol. The results are calculated in terms of mgm. of absolute alcohol per 100 ml. of urine.

Method for Blood.—The method adopted for the removal of the blood proteins is that of J. C. Bock (5), who found that by this process the alcohol in blood could be estimated to within 2 per cent. of the amount added.

The reagent is prepared by dissolving 12 grammes of phosphomolybdic acid and 10 grammes of sodium sulphate crystals in about 600 ml. of distilled water; 9 ml. of concentrated sulphuric acid are added, and the solution is boiled for 15 minutes. It is then cooled and made up to 1 litre.

15 ml. of blood (or, if the condition of the blood is unsuitable for volumetric measurement, 15 grammes) are run slowly into a 100 ml. glass-stoppered volumetric flask containing approximately 75 ml. of phosphomolybdic acid reagent. The flask is gently agitated to ensure even mixing and filled to the mark with the reagent, and then thoroughly shaken. It is allowed to stand for 10 minutes, transferred to two 50 ml. stoppered centrifuge tubes, and centrifuged at high speed for 10 minutes. The supernatant liquid is filtered through a coarse filter, the filtrate measured and then transferred to a 300 ml. Jena distillation flask, the measuring vessel being washed with distilled water, and the volume adjusted to 100 ml. From this stage the analytical procedure is identical with that followed in the analysis of urine. It is usually found desirable to oxidise larger quantities of the final distillate than in the case of urine, 5 to 10 ml. generally being used according to the alcohol content. The quantity of blood used for the determination depends on the amount available, and also on the concentration of the alcohol in the blood. If the alcohol content is low and very accurate results are required, it is advisable to take two to three times the quantity of blood and use two to three times the quantity of reagents for precipitating the proteins, and then concentrate the alcohol in 4 or 5 distillations, distilling approximately two-thirds of the volume each time.

Experimental.—In order to determine the efficiency of the oxidation of the sulphuric acid—dichromate mixture on dilution, amounts of dilute alcohol solution varying from 1 to 10 ml. were used, keeping the same volume of sulphuric acid—dichromate mixture. The results obtained are shown hereunder in Table I.

TABLE I.

Volume of Dilute Alcohol Used.	Corresponding to Mgm. of Absolute Alcohol.	Mgm. of Absolute Alcohol found.
ml.		
1	2·20	2·20
2	4·40	4·45
3	6·61	6·55
5	11·01	11·10
10	22·03	22·22

From these results it will be seen that dilution even to the extent of 10 ml. does not affect the accuracy of the method by more than 1 per cent.

Recovery of Alcohol in Distillation.—In order to estimate the loss during the process of concentration by the several distillations, varying amounts of dilute alcohol were added to urine and distilled and estimated in the manner described in the method for the analysis of urine. The results obtained are given in Table II hereunder.

TABLE II.

Volume of Diluted Urine.	Mgm. of Absolute Alcohol added.	Mgm. of Absolute Alcohol found.
100 ml. undiluted	Nil.	3·1
100 ml. containing 95 ml. urine	22·0	24·7
100 ml. containing 90 ml. urine	44·0	45·9
100 ml. containing 80 ml. urine	88·1	89·5

From these figures it will be seen that the loss of alcohol in the process of distillation and estimation does not exceed 2 per cent.

Table III shows the results obtained from the urine and blood of persons placed under test, who had consumed known quantities of various alcoholic liquors (wine, beer, whisky and rum). For the purposes of the investigation, the wine and beer were consumed undiluted, the whisky was diluted with an equal volume of water, and the rum with an equal volume of milk. Thirty millilitres were taken as the equivalent of 1 fluid ounce.

TABLE III.

Weight of Consumer.	Liquid Consumed.	Alcoholic Strength of Liquid Proof Spirit.	Time of Consumption.	Amount of Liquid Consumed.		Amount of Absolute Alcohol Consumed.	Time of Urination.	Volume of Specimen.		Alcohol in Specimen.	Alcohol Eliminated,	Clinical Notes.
lb.		%		ml.	oz.	grammes.		ml.	oz.	Mgm. per 100 ml.	gramme.	
					Examination of Urine.							
170	Port wine	35	10·0 a.m.	120	4	19·0	11·30 a.m.	160	5 3	22	·035	Eyes suffused. Nothing els characteristic.
			11·30 a.m.	120	4	19·0	1 p.m.	170	5·6	35	·059	
			1 p.m.	150	5	23·8	2·30 p.m.	110	3·6	58	·064	
170	Port wine	35	8·45 a.m.	270	9	42·8	10·0 a.m.	105	3·5	48	·050	Eyes suffused. Nothing els characteristic.
							10·45 a.m.	136	4·5	63	·086	
							11·45 a.m.	70	2·3	55	·038	
							2·25 p.m.	70	2·3	22	·015	
170	Port wine	35	8·45 a.m.	420	14	66·6	10·15 a.m.	305	10·2	79	·241	Eyes suffused; pupil refle sluggish; some dizziness more talkative than usual. Admits he does not feel fit t to drive a car.
							10·45 a.m.	245	8·2	92	·225	
							11·15 a.m.	105	3·5	102	·107	
							12·15 p.m.	80	2·6	103	·082	
							3·45 p.m.	105	3·5	59	·062	
125	Rum	70	9·40 a.m.	120	4	38·0	10·55 a.m.	460	15·3	157	.722	11.20 a.m. — Fairly drunk demonstrative; some loss o control, but not foolish staggers, especially on turning; pupils react slowly skin hot; pulse not rapid speech alright; no confusion of ideas. 12·30 p.m.—Very drunk; great loss of control; exaggerated idea of capacity; staggering gait; foolish; sleepy; face pale; sweating a little. 1·30 p.m.—Sleeping; pulse 60 3 30 p.m.—Awake; pulse 90 pupils normal and react well; no staggering, bu feels a little dizzy. Not fit to drive a car.
			10·5 a.m.	60	2	19·0	11·25 a.m.	400	13·3	237	·948	
			10·20 a.m.	60	2	19·0	12·25 p.m.	196	6·5	281	·551	
			10·40 a.m.	60	2	19·0	3·25 p.m.	195	6·5	216	·421	
			11·0 a.m.	60	2	19·0	5 p.m.	80	2·6	198	·158	

TABLE III—*continued.*

eight of Con- umer. lb.	Liquid Consumed.	Alcoholic Strength of Liquid Proof Spirit. %	Time of Con-sumption.	Amount of Liquid Consumed.		Amount of Absolute Alcohol Consumed.	Time of taking Specimen.	Volume of Specimen.		Alcohol in Specimen.	Alcohol Eliminated.	Clinical Notes.
				ml.	oz.	grammes		ml.	oz.	Mgm. per 100 ml.	gramme.	
						Examination of Urine.						
174	Whisky ...	70	9·30 a.m.	120	4	38·0	11·15 a.m.	675	23·5	184	1·242	10·30 a.m.—Pulse 84; skin hot; eyes bleary with slight injection of conjunctivae; pupils react slowly; talkative; staggers after turning; picks up pin well; feels dizzy. 11·25 a.m.—Condition about same; vomited approximately 6 ozs.; occasional vomiting up to 1 p.m., mostly phlegm. 12·25 p.m.—Condition about same, but dull and more sleepy. 1 p.m.—Says time is about 12·30 p.m.; knows day and date; pupils moderately dilated; react somewhat slowly; hand to nose movement good. 2·45 p.m.—Good condition, but bleary. 4·15 p.m.—A little giddy again; headache; pulse 84. Not fit to drive a car.
			9·50 a.m.	60	2	19·0	2·30 p.m.	255	8·5	219	0·558	
			10·0 a.m.	60	2	19·0	4·50 p.m.	70	2·3	127	0·089	
			10·10 a.m.	60	2	19·0	6·0 p.m.	55	1·8	87	0·048	
			10·20 a.m.	60	2	19·0	10·25 p.m.	225	7·5	28	0·063	
			10·30 a.m.	60	2	19·0						
			4·0 p.m.	30	1	9·5						
	Beer	7	5·30 p.m.	180	6	5·7						
						Examination of Blood.						
							12·25 p.m.	30	1·0	181	...	
							2·50 p.m.	15	0·5	163	...	
							4·55 p.m.	20	0·7	118	...	
						Examination of Urine.						
174	Beer	8·0	8·40 a.m.	600	20	21·9	9·40 a.m.	180	6	76	0·137	10·10 a.m.—Pulse 88; conjunctivae congested; pupils sluggish with line test (*i.e.*, walking along a line, stooping to pick up an object at the end of the line and then turning), staggers a little. Knows day of week, time and date. Loquacious; not drunk, but obviously under the influence of alcohol. Not fit to drive a car. 11 a.m.—Looks much more affected. Standing with eye shut, sways, but touches his nose and brings his finger tips together well. Pulse 94. With line test staggers a little, and loses his balance on stooping. Very loquacious and swears a good deal in conversation. 11·45 a.m.—Still very loquacious and swearing more than ever. Does the line test well, without staggering, but on walking more slowly still staggers a little. Pulse 100, but is obviously improving.
			8·50 a.m.	400	13·3	14·6	10·30 a.m.	200	6·6	144	0·288	
			9·10 a.m.	600	20	21·9	11·5 a.m.	430	14·3	203	0·873	
			9.20 a.m.	500	16.6	18.3	11.30 a.m.	465	15.5	204	0·948	
			9.30 a.m.	600	20	21.9	12.10 p.m.	465	15.5	183	0·851	
			9·40 a.m.	150	5	5·5	2·25 p.m.	210	7	175	0·367	
			9·50 a.m.	150	5	5·5	4·20 p.m.	135	4·5	122	0·164	
			10·0 a.m.	260	8·6	9·5						
						Examination of Blood.						
							10·15 a.m.	27	0·9	143	...	
							11·0 a.m.	30	1·0	159	...	

Summary.

(1) A method of analysis is described whereby the amount of alcohol in urine can be accurately determined, using apparatus which is readily available.

(2) The amount of alcohol found in the urine and blood is, in our opinion, a definite indication of the minimum quantity of liquor consumed and the alcoholic condition of the individual.

(3) The maximum elimination of alcohol by the urine takes place in from two to two and a half hours. This opinion is reached by averaging the amount of liquor consumed and the time taken by the individual in the consumption as reported in Table III.

(4) The factors given by Evans and Jones (3) for the calculation of the amount of alcoholic liquor consumed from the alcohol content of the urine at its maximum excretion seem to hold reasonably well for a person weighing about 9 stone. For individuals weighing approximately 13 stone, the factors should be increased in the ratio of 13 to 9.

(5) Of the alcohol consumed, approximately 2 to 3 per cent. is eliminated in the urine, the individuals of lower body weight appearing to eliminate a greater percentage for the same consumption of liquor.

(6) Owing to the greater difficulty in obtaining and examining blood for alcohol content, it is desirable in our opinion to limit the examination in cases of living persons to specimens of urine. This will give the same information as to the minimum amount of liquor consumed by the individual as will the more difficult examination of the blood.

(7) It is advisable to collect at least two samples of urine at approximately half-hourly intervals in order to form an opinion as to the minimum amount of alcohol consumed.

In conclusion we would like to express our thanks to Dr. C. E. Percy, Medical Officer, Hospital Admission Depot, Health Department, Sydney, for his interest and assistance in carrying out the investigation.

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PURE FOOD ACT, 1908.

REPORT OF THE CHIEF INSPECTOR OF THE GENERAL ADMINISTRATION OF THE PURE FOOD ACT, 1908, FOR THE YEAR ENDED 31st DECEMBER, 1935.

Staff.

Chief Inspector, Charles V. Francis, M.R. San. I.; Senior Inspector, G. A. Griffin; 10 Metropolitan Inspectors; 2 Country Inspectors; and 1 Assistant.

I herewith submit particulars of the work performed by the Pure Food Branch for the year ended 31st December, 1935. This work includes the supervision of all places where food or drugs are prepared, stored or exposed for sale, together with the incidental duties which it is necessary to carry out in order to secure the wholesomeness, cleanliness, and freedom from contamination of food and drugs, and compliance with the legal provisions as set out in the Act and Regulations thereunder.

Milk Supply.—12,379 samples of milk were collected by departmental officers from all parts of the State for examination by the Government Analyst; 194 of the samples did not comply with the standard; 77 warnings were issued, and 117 traders were prosecuted, a total of £323 5s. being imposed in fines and costs.

Meat Samples.—The department continued its efforts to prevent the use by butchers of preservatives (principally in powder form) in meat; and officers of the Branch report that many former persistent offenders have relinquished the practice. In connection with the 6,622 samples analysed, 211 warnings were issued, and 324 persons were prosecuted, the fines and costs imposed amounting to £670 3s.

From the nominal penalties occasionally imposed it would appear that there are some magistrates who fail to take a serious view of the adulteration of meat by the addition to it of sulphurous acid. This is unfortunate, as nominal penalties frequently not only do not act as a deterrent, but may encourage unscrupulous traders in their practice of injuriously tampering with an important food. With the object of securing the imposition of heavier penalties by presiding magistrates, departmental inspectors have been instructed to lay informations in certain cases as second offences. Persistence by traders in this adulteration may also result in local authorities being asked to consider the cancellation of trading licenses.

Pickling Brines.—There is noticeable improvement in the quality of the brine used for pickling meat; twenty-eight samples were analysed, and eight persons found to be using dirty brine were successfully prosecuted; fines and costs imposed amounting to £19 16s. It is an offence against the regulations to use brine more than once for pumping purposes.

Bread Supply.—The method of handling bread received particular attention, especially in relation to methods of wrapping, protection from dust, flies, etc. There were well over 100 prosecutions for faulty methods of handling. One prosecution and conviction concerned a vienna loaf in which a whole mouse was found embedded.

Butter Samples.—With one exception the twenty-nine samples analysed were in accordance with the standard; the exception contained excess water, and a prosecution was successful.

Jams.—Of 47 samples of jam analysed, 11 were found to contain fruit pulp not in accordance with the labelled contents. Fines imposed for this form of adulteration amounted to £26 12s. The consignment concerned (226 cases) was from another State, and was returned to the manufacturer.

Dried Fish containing Preservatives.—A number of *cod fish* blocks, packed in U.S.A., on analysis were found to contain over 20 grains of boric acid per lb. and a considerable quantity of formaldehyde. All stocks were immediately withdrawn from the market by the importing firm, and consent obtained for 337 cases to be returned to the American port of shipment. *Ling fish* was also found to contain a considerable amount of formaldehyde; these shipments were also withdrawn from sale and returned to the port of shipment in England.

Excess Tin in Canned Sild.—Attention was drawn by another State to this matter, and analyses were made to ascertain the metal content of various kinds of canned fish. It was found that in practically no instance was the permitted amount of 2 grains per lb. exceeded with the exception of Norwegian sild, which, in some instances, contained up to 6 grains per lb. This matter is receiving attention through the Norwegian Consul.

Misdescription of Fillets of Fresh Fish.—Several convictions were obtained with salutary effects against vendors of fresh fish who were selling fillets of cheaper fish as " bream," " schnapper," etc.

Liqueur Chocolates.—A prosecution for the sale of liqueur chocolates, the centres of which contained excess alcohol, resulted in a fine of £4, with 8s. costs.

Beer.—Thirty-seven samples were submitted for analysis, and all were in accordance with the standard. No preservative was found.

Summer or Temperance Drinks.—Seventy-seven samples were taken for analysis; twenty-four were found not to comply with the labelling requirements, and warnings were issued. Two prosecutions were successfully instituted.

Canned Vegetables.—After a lengthy period, during which no prohibited colouring matter was found in preserved vegetables, two samples of canned beans and peas taken from a local factory were found to have been coloured with copper. The offenders were fined £2 with 8s. costs in each case.

Food and Drugs other than Meat and Milk.—1,189 samples of other foods and drugs were taken for analysis during the year. Prosecutions were instituted in thirty-four instances, and fines and costs imposed to the value of £76 8s. One grocer found to be selling canned and other foods manifestly unfit for human consumption was fined on five charges a total amount of £58.

Disinfectants in Food Containers.—One trader who was found to be putting disinfectants in stone ginger beer bottles and other containers on which there were food brands, was prosecuted and convicted.

Laxative Tablets.—For some time tablets have been sold under such names as "castor oil compounds," "castor oil tablets," etc. As the tablets contained only phenolphthalein, certain action was taken which should result in cessation of the misdescription. The existing regulations unfortunately do not require traders to declare the presence of phenolphthalein.

"*Quack Remedies.*"—Considerable attention was given to premises on which "quack remedies" and nostrums are prepared. In one instance, the manufacture and dispensing of herbs and drugs was carried on in premises where a room was used for church services; it, apparently, being a paying proposition to mix prayers and potions. The premises were in an unsatisfactory condition, and on prosecution the trader was fined £5 and costs for failure to keep the premises clean.

Seizure and Destruction of Deteriorated Food.—About 10,000 tins, bottles and packets, and over 40 tons of bulk foods found to be in a deteriorated condition were seized and destroyed under departmental supervision. Five prosecutions were undertaken, and £58 imposed in fines and costs.

Revision of Pure Food Regulations.—A considerable amount of work was done during the year in connection with the proposed revision of the Regulations.

HEALTH WEEK.

This Branch made its usual annual displays during Health Week; and an exhibit on similar lines was prepared for the Health Inspectors' Conference at the Sydney Technical College. Both displays attracted considerable attention, and conveyed in some small measure the varied activities of the department.

VENEREAL DISEASES ACT, SEC. 25.

Several prosecutions were successfully instituted during 1935 against persons who contravened the provisions of the above section. Action was taken in conjunction with the Federal Authorities to prevent the sale in this State of foreign magazines and publications (principally originating in the U.S.A.) containing advertisements concerning female irregularities, sexual impotence, etc. The firms responsible for the importation are now deleting the offending advertisements (either by cutting or blotting them out). One Sydney firm is said to have several employees engaged on the work.

LEGAL PROCEEDINGS.

In the attached summary and tables below particulars are given of the 597 prosecutions instituted by officers of the Branch during 1935; and of the total fines and costs imposed, viz., £1,461 13s., in connection with prosecutions under the Pure Food Act and Regulations, the Venereal Diseases Act, Nurses Registration Act, and the Dentists Act. A summary is also given of the total prosecutions since the Pure Food Act came into operation in 1910.

TABLE I.—Summary of Work performed by Pure Food Officers for the year ended 31st December, 1935.

Analysis of Samples of Milk.	Samples taken by—		
	Departmental Officers.	Municipal and Shire Council Inspectors.	Total.
Number of samples taken from all parts of the State	12,379	4,460	16,839
Number of samples below standard	194	91	285
Number of warnings	77	37	114
Number of prosecutions	117	54	171
	£ s. d.	£ s. d.	£ s. d.
Amount of fines and costs	323 5 0	146 4 0	469 9 0

*Foods and Drugs, other than Milk.** (See Table I, p. 24.)

Number of samples taken from all parts of the State	7,811
Number of samples below standard	612
Number of warnings	254
Number of prosecutions	358
Amount of fines and costs	£746 11s.

Food unfit for Consumption, Seized and Destroyed.

The seizures comprised over 40 tons of foodstuffs, and 9,987 packages of assorted food.

Number of prosecutions	5
Amount of fines and costs	£58.

Inspection of Premises used for Preparation, Sale, or Storage of Food.

Number of premises inspected in all parts of the State	11,700
Number of notices issued	609
Number of prosecutions	17
Amount of fines and costs	£69

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* Local authorities (municipal and shire councils) do not, as a matter of routine, collect samples of foods and drugs other than milk.

Table 2—Summary of Legal Proceedings for Breaches of the Pure Food Act and Regulations, 1935.

	Prosecutions.	Fines and Costs.		
		£	s.	d.
Adulterated milk	171	469	9	0
Adulterated foods and drugs	17	69	0	0
Food unfit for human consumption seized and destroyed	358	746	11	0
Unclean premises	5	58	0	0
General breaches of Act and Regulations	92	228	14	0
Breaches of Venereal Diseases Act and Regulations	2	6	6	0
Breaches of Nurses Registration Act	4	5	17	0
Breaches of Dental Act	2	24	0	0
Grand Total	651	£1,607	17	0

Table 3.—Summary of work carried out under the Pure Food Act, 1908, from the date of its operation (October, 1910) to 31st December, 1935.

	No. of Premises Inspected.	No. of General Breaches.	Total number of samples taken.	Total below standard.	Prosecutions undertaken.	Amount of Fines and Costs.		
						£	s.	d
Premises inspected	211,708	......	......	......	2,354	11,932	3	0
General breaches of Act	......	2,098	......	......	1,727	5,621	5	0
No. of milk samples	......	......	209,363	8,468	4,412	21,128	2	0
No. of food and drug samples	......	......	47,820	7,342	4,304	12,925	1	0
Total	211,708	2,098	257,183	15,810	12,797	51,606	11	0

REPORT OF THE CHIEF SANITARY INSPECTOR FOR THE YEAR ENDED 31st DECEMBER, 1935.

Staff.—Chief Sanitary Inspector, Mr. G. A. Garrow, M.R.San.Inst.; 7 other certificated inspectors and 1 certificated inspector and licensed surveyor.

The vacancies on the staff, arising from the retirement of Mr. E. A. Cresswick (October, 1932), and the death of Mr. T. A. Curry (June, 1934), were not filled until towards the end of 1935, when two appointments were made; one of the new officers (Mr. R. C. Turner) entered upon duty on 19th December, 1935, and the other (Mr. W. R. Roach) on 2nd January, 1936.

A clearly perceptible change is taking place in the supervisory work of this Branch; whereas formerly the principal activities were in connection with routine inspections, they are now concerned more and more with matters of a technical nature upon which advice is sought by local authorities, other departments, and large business undertakings and manufacturing firms, concerning various processes which require specialised advice and guidance. The employment by the larger municipal and shire councils of qualified health inspectors has relieved the Department to a very considerable extent of the necessity of giving constant attention to routine sanitary inspections, except in some of the more outlying districts which are still unprovided with qualified inspectors, and the unincorporated areas in the Western Division of the State.

Routine and General Inspections, Etc.

Country Towns.—Eight primary inspections, and 30 re-inspections were made of country towns, and recommendations indicating necessary action were forwarded to the respective local authorities.

Outbreaks of Infectious Diseases in six districts were investigated and recommendations made as to the preventive measures considered necessary. As a result of investigations made in connection with the occurrence of typhoid fever cases at Deniliquin, action was taken for the removal of insanitary conditions found to exist at an aborigines' camp adjacent to the municipality.

Investigations were made in connection with the occurrence of cases of endemic typhus fever (Brill's disease) among workers at a city warehouse.

Sanitary and Garbage Depots.—Inspections were made of 66 sanitary depots; and 27 proposed sites for depots; 20 of the sites were recommended for approval; 24 inspections were made of garbage tips; 15 scavenging districts were recommended for approval.

Insanitary Buildings.—Inspections were made of 121 insanitary buildings; in 23 the conditions found were such as to warrant their classification as unfit for human habitation, and closing order certificates were issued to the respective local authorities in order that they might take action to close the buildings. In respect of the other buildings, recommendations were made as to the improvements necessary to place the buildings in a habitable condition.

Cattle Slaughtering and Diseased Animals and Meat Act.—It is gratifying to report that the interest of local authorities in meat inspection in their districts has been greatly stimulated by the amendments made in 1932 to Section 15 of the Cattle Slaughtering Act, whereby local authorities are empowered to collect fees for inspection of slaughtering. Investigations were made on behalf of thirteen local authorities with a view to framing suitable scales of fees to provide for the employment of qualified meat inspectors, and twelve scales of fees have been framed and submitted for approval.

During the year, 336 slaughtering premises were inspected by officers of this Branch.

Theatres and Public Halls.—Tests were made of the air in 2 theatres, and reports submitted to the Chief Secretary's Department; at the request of that Department an examination was made of the plans and specifications for 4 proposed new theatres. Forty-seven routine inspections were made of theatres and public halls.

Hotel Premises.—Inspections were made of 97 hotel premises, and reports and recommendations concerning them submitted to the licensing authorities.

Officers of this Branch are frequently called upon to give expert advice both in and out of court concerning proposed alterations and repairs to hotel premises; and as to the practicability or otherwise of septic tank installations, etc., on such premises.

Swimming Pools.—The construction of swimming pools continues in many country centres. Plans of 3 new pools were reported upon, and inspections were made of 11 existing pools and samples of water taken for analysis.

It is satisfactory to note that simultaneously with the increasing popularity of swimming pools, local authorities are taking a much keener interest in the maintenance of clean water in the pools. This is evidenced by a desire on the part of local authorities to obtain advice from, and investigation by, Departmental officers. Formerly there was noticeable a certain amount of nervousness on the part of councils as to the conditions investigations might disclose. As all the more recently constructed pools are of modern design and equipment, such distrust by councils has now in large measure disappeared.

Disposal of Trade Wastes—Drainage from Woollen Mills.—At one mill adjacent to a river, subject to tidal influence, the drainage is treated with lime and pumped to settling basins, from which it ultimately passes horizontally through coke screens to the river. The residue in the settling basins is removed to drying ponds. Samples of the final drainage and the river water are collected monthly for analysis. The results of treatment so far have proved reasonably satisfactory.

Drainage from Fruit Canning Factories is in some instances treated by means of screens and sedimentation tanks before final disposal. Reasonably satisfactory results are being obtained. Arrested matter is burned or buried according to its condition.

Bedding Investigations.—Special investigations have been made, and close supervision maintained, in connection with the manufacture and sale of flock and bedding materials; this entailed the making of 53 inspections to ascertain the source of rags intended for use in the manufacture of flock.

Flock.—The Regulations concerning flock and other materials used in bedding and upholstery have been repealed, and replaced by a new code of Regulations which provides for wider control over the use of these materials.

The Regulations relating to *Rag-pickers, rag dealers and flock-makers* are being amended to provide for more adequate control over these trades.

Sterilization of Feathers.—A standard specification has been drafted for the grading, classification and sterilization of feathers, downs, and feather-downs obtained from various types of domestic and water birds. This standard is on trial for a period. It applies to purified materials for use in bedding and upholstery, including such articles as quilts, pillows, cushions, etc.

Noxious Trades Act.—There were 1,146 registered noxious trades premises in the State at 31st December, 1935, and extensive inspections were necessary.

Unhealthy Building Land.—Surveys were made in 1935 of various large areas of low-lying land unsuitable for building purposes; most of these areas are beyond the metropolitan area, and include land in the Erina Shire (Chittaway Point, Ourimbah Creek and Terrigal); Lake Macquarie Shire (Belmont and Pelican Flat); and at Carrington and Wickham in the Newcastle district.

Notices gazetted during the year covered three large areas at Katoomba; and land at Chittaway Point and Terrigal.

Routine inspections were made of 125 blocks unsuitable for building purposes, or of buildings in course of erection thereon.

Fees collected from solicitors and others in connection with 2,012 inquiries at 2s. 6d. each as to whether land is notified as unsuitable for building purposes amounted to £251 10s.

Septic Tanks.—There does not appear to be any diminution in the demand for information and advice concerning septic tanks, nor, appreciably, in the number of tanks installed, notwithstanding that in recent years a number of the larger country towns have been sewered.

Gazettal of Regulations for Handling of Dead Wool.—For the protection of workers handling dead wool Regulations have been issued under the Public Health (Amendment) Act, 1921, which prescribe the method of treating and sorting such wool, collection of dust and debris, provision of accommodation and protective clothing, etc., and the action to be taken in the event of injury.

Health Week.—Some interesting exhibits consisting of working models, posters, etc., were prepared for displays in shop windows and elsewhere. Particular attention was given to methods of destruction of household pests, disposal of household wastes, etc.

Cremation.—There are now three crematoria within a few miles of the City of Sydney, all of which are maintained in a satisfactory condition; a crematorium is now in course of erection for the Hunter River District.

Inquiries were made into a complaint that the outer caskets and also the lids of coffins were removed from crematoria to undertakers' premises. No foundation was found for the complaint.

Prosecutions instituted by officers of this Branch for breaches of the Health Acts and Regulations and the Local Government Ordinances resulted in the collection of £79 19s. in fines and costs.

Summary of General Inspections and Investigations.—

Septic tank sites, plans, etc.	348
Sewage treatment works	4
Disposal of nightsoil in ploughed furrows	8
Chemical closets	14
Unemployed and other camps	143
Saleyards	11
Noxious trades	805
Bedding factories	53
Recreation grounds and racecourses	44
Crematoria and plans	4
Pure food premises, including butcher shops	156
Public hospitals and sites	19
Barbers' shops	96
Samples collected for examination—water, sewage, soil, flock, etc.	253

Proposed Early Revision of the Legislative Enactments Concerned with Public Health.—A considerable amount of time was devoted during the year to the amendments required to the existing Public Health and cognate Acts, Regulations and Ordinances, with a view to the preparation and early submission to the Minister of a comprehensive Health Bill for presentation to Parliament.

GEO. A. GARROW,
Chief Sanitary Inspector.

PRIVATE HOSPITALS ACT, 1908.

Report on the operation of the Act for the year ended 31st December, 1935, by B. R. Overend, M.B., Ch.M., D.P.H., D.T.M., D.T.H., Assistant Medical Officer of Health.

The number of private hospitals licensed in New South Wales as at 31st December, 1935, was 635, having a total of 5,552 beds, this being a decrease of 72 licenses and 446 beds compared with the figures for the previous year.

Of the 635 licensed private hospitals, 241, with a total of 2,910 beds, were located in the metropolitan area, and 394, having a total of 2,642 beds, were situated in the country districts.

The number of private hospitals in the metropolitan area diminished during the year by 25, with a decrease of 245 beds, whilst in the country there was a decrease of 47 hospitals and 201 beds.

Most of the private hospitals are small, only 46 being licensed to receive more than 20 patients at any one time, while in 482 the accommodation did not exceed 10 beds.

Of the 635 private hospitals licensed, 301 were for the reception of lying-in cases only, 39 for medical and surgical cases only, and 295 for the reception of all classes of cases.

Inspection of Private Hospitals.—The five Supervisory Nurses carried out systematic inspections of all licensed private hospitals during the year, in addition to other duties performed by them in connection with the Nurses' Registration Act. This enabled each hospital to be inspected, on an average, twice during the year, and in cases where further advice was needed a departmental medical officer or a sanitary inspector made special inspections. Many resident managers, especially those who are keen on improving the standard of their hospitals, appreciate the visits of the supervisory nurses, for in many instances the inspecting nurse is able to give advice and personally discuss with the manager problems which present some difficulty to her and which arise from time to time.

There has been a further improvement in the general standard of premises licensed as private hospitals, but a number of the smaller hospitals are still of poor type. Most of the small private hospitals are devoted to the reception of one or two lying-in cases only, and in practically all these hospitals it is the custom of the midwifery nurse to conduct an outdoor nursing practice in the district, and at the same time conduct her own home as a private hospital, in which she has one or two rooms licensed as wards. In many cases the equipment and attendance is poor, and owing to the many duties that such a licensee has to perform, she is unable to give her undivided attention to her hospital patients. It is also found that many of these hospitals are conducted in cottages of just sufficient size to comfortably house the licensee and family, so that when one or two rooms are set aside for the use of patients it tends to create congestion and overcrowding. It is my opinion that the carrying on of an outdoor practice by the resident manager of a private hospital is most undesirable.

Community Activities in Connection with Private Hospitals.—The Bush Nursing Association of New South Wales and the Country Women's Association of New South Wales still continue to carry on the excellent work of maintaining hospitals for the benefit of residents in the more remote parts of the State.

Exemptions.—There were no hospitals holding an exemption in 1935.

Prosecutions.—There were four prosecutions under the Act during the year, and many warnings as to minor infringements of the Act had to be issued.

Sepsis connected with Pregnancy in Private Hospitals.—Sixty-nine cases were notified during 1935, and were for the most part single isolated cases of infection.

Rest Homes.—These premises were inspected during the year by the Supervisory Nurses, and in most cases the reports on the manner in which they are being conducted were good. On the other hand, it appears that in some there is a tendency to overcrowding and its attendant unsatisfactory conditions, and it is hoped that in any amending legislation such premises will be required to be licensed under the Act.

Surgical Hospitals.—A survey of the equipment of private hospitals licensed for the reception of surgical cases has disclosed that in a number of such hospitals the means provided for the conduct of surgical operations is far from satisfactory.

Private Hospitals Legislation.—The existing "Private Hospitals Act, 1908," having been found deficient in many important respects, it is hoped that during the present year amending legislation will be brought forward to supply the many deficiencies in the present Act, and to procure more uniformity than is at present possible, particularly in the matter of buildings and the equipment and staffing of private hospitals.

Assistance Rendered by Other Departments.—The thanks of this Department are due to the Commissioner of Police and the Registrar of the Nurses' Registration Board and their officers for their ready and able assistance in connection with the administration of the Private Hospitals Act.

Comments on Tables I and II.—Table I—From the figures given in Table I, it will be seen that hospitals licensed for lying-in cases only constitute the greater proportion of those licensed, amounting to 47·5 per cent. of the total, compared with 48·3 per cent. in 1934. Those private hospitals licensed for the reception of medical and surgical cases only constituted 6·1 per cent., compared with 5·6 per cent. in 1934, and those licensed to receive all three classes of patients formed 46·4 per cent. of the total, compared with 46·1 per cent. last year. On the other hand, the number of beds available was greatest in those hospitals licensed for the reception of all classes of cases, amounting to 66·3 per cent. of the total beds, compared with 22·1 per cent. for beds in purely midwifery hospitals. It is evident therefore that there are a number of small private hospitals devoted to the reception of one or two lying-in cases only.

Table II.—The number of 4–10 bed hospitals is still the largest in proportion of all those licensed, being 46·4 per cent. of the total, and being a small increase on the proportion of the total for the previous year.

TABLE I.—Classification of Private Hospitals licensed at 31st December, 1935, according to nature of cases received, and the total number of beds provided by each class of hospital.

	Medical, Surgical, and Lying-in.		Medical and Surgical.		Lying-in.		Total.	
	No. of.. Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.
Sydney and District	93	1,925	26	497	122	488	241	2,910
Country Districts	202	1,759	13	143	179	740	394	2,642
Total	295	3,684	39	640	301	1,228	635	5,552

TABLE II.—Classification of Private Hospitals licensed at 31st December, 1935, with respect to size, as signified by the number of beds available.

	1.	2.	3.	4–5.	6–10.	11–20.	Over 20.	Total.
Sydney and District	23	23	20	35	56	49	35	241
Country Districts	26	45	50	90	114	58	11	394
Total	49	68	70	125	170	107	46	635

B. R. OVEREND,
Assistant Medical Officer of Health.

HOSPITAL ADMISSION DEPOT; MEDICO-LEGAL SECTION, Etc.

REPORT OF THE GOVERNMENT MEDICAL OFFICER FOR SYDNEY FOR THE YEAR ENDED 31st DECEMBER, 1935.

Medical Staff.

Dr. Arthur Palmer, Government Medical Officer for Sydney; Dr. C. E. Percy, Medical Officer.
Depot Assistants, 2; *Night Officer*, 1.

Medical Work.

Arrangement of Admissions to Hospitals and Homes and Outdoor Treatment.—The Depot is open for this purpose from 9 a.m. to 5 p.m., Monday to Friday, and from 9 a.m. to 12 noon on Saturday. At all other times a Night Officer is available.

During the year ending 31st December, 1935, 8,447 persons were admitted through the Depot to the various Metropolitan hospitals. 7,916 were admitted to the State Hospitals and Homes at Lidcombe, Liverpool, Newington, George-street and Macquarie-street, Parramatta; 980 to the Convalescent Homes at Camden and Vaucluse; and 1,992 persons were referred to the Metropolitan hospitals for outdoor treatment.

The examinations of persons entering convalescent homes, orphanages, etc., are carried out.

Applications by persons living in the country for admission to Metropolitan or Base Hospitals are dealt with.

Medical Examinations for State Government Departments.—These examinations were made as follows:—

(*a*) of persons claiming or receiving aid from the Child Welfare Department;
(*b*) for retirement from the Public Service on account of invalidity;
(*c*) pensioners under the Superannuation Act;
(*d*) of Pilots;
(*e*) to ascertain the fitness of officers to continue duty after reaching 60 years of age;
(*f*) examination of applicants for the Widows' Pension and for renewals of pensions;
(*g*) examination of boys for fitness to undergo courses of farm training;
(*h*) examination of returned soldier applicants referred by the Premier's Department for travelling concessions;
(*i*) examination of applicants for surgical appliances referred by the Chief Secretary's Department;
(*j*) examinations for fitness to hold Motor Driver's Licence (on behalf of the Transport Board).

Some of the above persons were visited in their own homes by the Medical Officers.

Medical Examination of Police Recruits.—520 recruits (probationary constables and police cadets) were examined during 1935. 151 were classed as fit at the first examination, and others were eventually classed as fit when their defects were remedied or when they reached the required physical standards.

On completion of twelve months' service all probationary constables are again examined at the Police Headquarters. 48 such examinations were performed in 1935.

Medical Supervision of Sick Police.—This is carried out daily by the Government Medical Officer at the Police Headquarters. The sick or injured members of the Force attend for treatment or for the purpose of reporting the progress of their illness. The average daily number of police on sick report for 1935 was 72·03.

Any other matters concerning the health of the Police Force are also attended to.

Medico-Legal Work.

Examination of Alleged Rape and Criminal Assault Cases and Examination of Criminals.—These cases are examined at all hours, as it is usually desirable that they be examined as soon as possible after the offence. Examinations are made to determine any injury or to ascertain the mental condition of these persons. 99 examinations were made in 1935.

In addition, exhibits connected with these cases or with poisoning cases, etc., are seen before being sent to the Microbiological or Chemical Laboratory.

This work entails the attendance of the medical officers at the lower courts in the city and suburbs and at the Central Criminal Court and the Quarter Sessions, for the purpose of giving evidence.

Work for the Coroner's Court entails the daily attendance of the Government Medical Officer at the City Morgue for the purpose of examining dead bodies in connection with suicides, murders, violent and uncertified deaths, and the giving of evidence at the Coroner's Court.

During 1935, 387 examinations of dead bodies were carried out; the figures for 1934 being 343.

Lunacy Work.—The Reception House at Darlinghurst is visited daily by a medical officer for the purpose of examining persons detained there. 1,188 persons were certified as insane in 1935.

In addition, arrangements were made for the transfer of suitable cases to State Hospitals and Homes.

Vaccinations.—Members of the Police Force are vaccinated at the Police Depot during their course of instruction, and members of the general public at the Hospital Admission Depot. 158 vaccinations were performed in 1935.

The medical officers attached to this Branch are on duty at all hours and are liable to be called upon at any time by the Police Department for any urgent work of a medico-legal nature.

Ambulance Removals.—The Hospital Admission Depot arranges for the transport of patients to the various Metropolitan hospitals and to the State Hospitals and Homes. This work is carried out by the Central District Ambulance by means of its own ambulances or those of adjacent districts.

Ambulance Removals by the Central District ambulances during 1933, 11,974; 1934, 12,836 and 1935, 13,258.

SECTION I.—B.

DIVISION OF MATERNAL AND BABY WELFARE.

ANNUAL REPORT FOR THE YEAR ENDED 31st DECEMBER, 1935.

Director: Dr. Elma Sandford Morgan.

PART I.—MATERNAL WELFARE.

In the year 1935 there was a slight rise in the maternal death-rate for New South Wales, the rate being 5·1 per 1,000 live births, as against 4·9 per 1,000 for 1934.

Nevertheless, on the whole, the rate tends to be falling slowly. It is felt, however, that with increased knowledge and with the more wide-spread application of the laws of asepsis and antisepsis the fall in the maternal death-rate should be much more rapid.

In comparing the rates, allowance should be made for the fact that in recent years the deaths have been certified and classified more exactly than in former years.

There are also other factors which influence the maternal mortality rate to be taken into consideration, such as the later incidence of marriage, and the proportionately greater number of first births.

Table I.

Year.	Total Births.	Total Puerperal Deaths.	Deaths from Illegal Operations.	Percentage of Total Deaths caused by Illegal Operations.	Maternal Mortality Rate, excluding Illegal Operations.	Ratio.*
1911	47,677	279	12	4·3	5·6	100
1912	51,993	305	16	5·2	5·5	
1913	52,134	329	10	3·0	6·1	
1914	53,615	296	9	3·0	5·3	
1915	52,885	272	8	3·0	4·9	
1916	52,075	297	16	5·3	5·3	97
1917	52,467	327	22	6·7	5·8	
1918	50,700	267	15	5·6	4·9	
1919	48,528	263	17	6·4	5·0	
1920	53,974	331	27	8·1	5·6	
1921	54,634	281	33	11·7	4·5	85
1922	55,214	279	32	11·4	4·4	
1923	54,112	283	33	11·6	4·6	
1924	53,670	291	32	11·0	4·8	
1925	54,615	325	40	12·3	5·2	
1926	53,126	276	40	14·5	4·4	91
1927	53,858	352	46	13·0	5·6	
1928	54,800	327	32	9·7	5·4	
1929	52,672	278	33	11·8	4·6	
1930	52,136	304	44	14·4	4·9	
1931	47,724	288	45	15·6	5·1	91
1932	44,905	276	50	18·1	5·0	
1933	44,195	246	34	13·8	4·8	
1934	43,335	263	49	18·6	4·9	
1935	44,676	282	62	18·4	5·1	

* Per cent. ratio of quinquennial averages to average of 1911-15 which is taken as 100.

It should also be noted that the New South Wales (and Australian) rates are not strictly comparable with those of other countries, inasmuch as the Commonwealth Statistician adheres rigidly to the International Classification of Causes of Death, and many deaths are, no doubt, included in our maternal mortality rate which would in other countries be classified elsewhere. Some deaths, for instance, in England and Wales, are allotted to a special section for "Diseases not due to Childbirth, but associated therewith." No such differentiation is made in Australia, but such deaths are classified as being due to childbirth.

Births in New South Wales in 1935 numbered 44,676. This is the first rise in the birth-rate since 1930, and the actual number of births has only been lower on two occasions in the last twenty-five years. This is a very serious position in such a young and sparsely populated country.

What is more, the number of deaths from illegal operations continues to rise. Fifty-two women lost their lives from these practices in 1935 (the greatest number yet recorded). The alarming increase in these deaths is shown in Graph 2.

In Table II may be seen the various causes to which the puerperal deaths are ascribed.

Table II.—Deaths Incidental to Childbirth, New South Wales, 1930–1935.

Causes.	1930.		1931.		1932.		1933.		1934.		1935.	
	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.
Accidents of Pregnancy	33	·63	24	·53	24	·53	26	·59	20	·46	13	·29
Puerperal Haemorrhage	36	·69	33	·69	39	·87	31	·70	30	·69	39	·87
Puerperal Septicaemia	42	·81	41	·85	26	·58	34	·77	39	·90	44	·99
,, ,, following Abortion or Miscarriage..	38	·73	41	·85	33	·73	32	·73	24	·55	28	·63
Albuminuria and Eclampsia	41	·79	53	1·11	61	1·36	51	1·15	64	1·48	60	1·34
Phlegmasia Alba Dolens, Puerperal Embolism, Sudden Death	24	·46	23	·48	16	·35	16	·36	11	·26	21	·47
Other Casualties of Childbirth...............	46	·88	28	·58	27	·60	22	·50	26	·60	25	·56
Total	260	4·99	243	5·09	226	5·02	212	4·80	214	4·94	230	5·15
Illegal Operations	44	·84	45	·94	50	1·12	34	·77	49	1·13	52	1·16
Grand Total	304	5·83	288	6·03	276	6·14	246	5·57	263	6·07	282	6·31

Accidents of pregnancy (which include abortions not returned as septic, ectopic gestation, etc.) accounted for only about one-half as many deaths as in previous years. Even so, it is a reflection on our standard of diagnosis and treatment that our death-rate from ectopic gestation should compare so unfavourably with that of other countries.

Deaths from haemorrhage continue to remain persistently at about the same level, and the same applies to deaths from septicaemia.

In New South Wales and, indeed, in Australia generally, it would appear, however, that the reduction of the number of deaths from albuminuria and other toxaemias probably constitutes our greatest problem in maternal welfare.

From the Departmental Investigation into 1,073 puerperal deaths in New South Wales it is estimated that about one-third of the total deaths were associated with these conditions, as in a great number of cases, though death was actually ascribed to other causes (*e.g.*, sepsis), the cases were further complicated by toxaemia.*

The problem depends largely for its solution upon the women themselves. Even when every facility for ante-natal care and supervision is available, there seems to be a great reluctance on the part of the average woman to seek advice or to follow out prescribed treatment. The question, therefore, is ultimately one of education, and every opportunity is sought by this Department, through the Press and through personal contact, of carrying out educational propaganda.

The Investigation referred to above was carried out, as the pressure of official and routine duties permitted, by the officers of this Division during the years 1929–1933, and the year 1935 saw the completion of the survey. The resultant report has been published at the time of writing (1936).

Other activities of the Division during 1935 were pursued as in other years since the augmentation and reorganisation of the medical and nursing staff in 1929.

An important activity is the inspection and supervision of private hospitals and of the work of midwives.

This is carried out by special (treble-certificated) supervisory nurses, six in number; two work in the metropolitan area, one in the Newcastle district, and three in country districts. A seventh supervisory nurse is fully occupied in conducting pre-natal clinics in Metropolitan Baby Health Centres under my personal supervision.

The work of these (10) departmental pre-natal clinics continues to increase yearly. During 1935, attendances numbered 3,136. A gratifying feature of the work is an increase in the number of subsequent visits paid to the clinics throughout pregnancy, as well as in the number of mothers who return for supervision during subsequent pregnancies.

These clinics are especially intended to serve those cases where the mother intends being confined without any medical attendant and those districts remote from the public maternity hospitals, which the women are entering for confinement. In the latter case close touch is kept with the hospitals, and any abnormality reported thereto, while patients are saved the expense and inadvisability of travelling long distances in public conveyances for ante-natal supervision.

As these departmental clinics are held at Baby Health Centres and the Baby Health Centre nurses have special opportunities of getting in touch with expectant mothers, it is found that many women are reached in this way who would otherwise come into labour having had no ante-natal care whatever.

The supervisory nurses, on their visits of inspection, encourage practising midwives to avail themselves, on their own and their patient's behalf, of these clinics.

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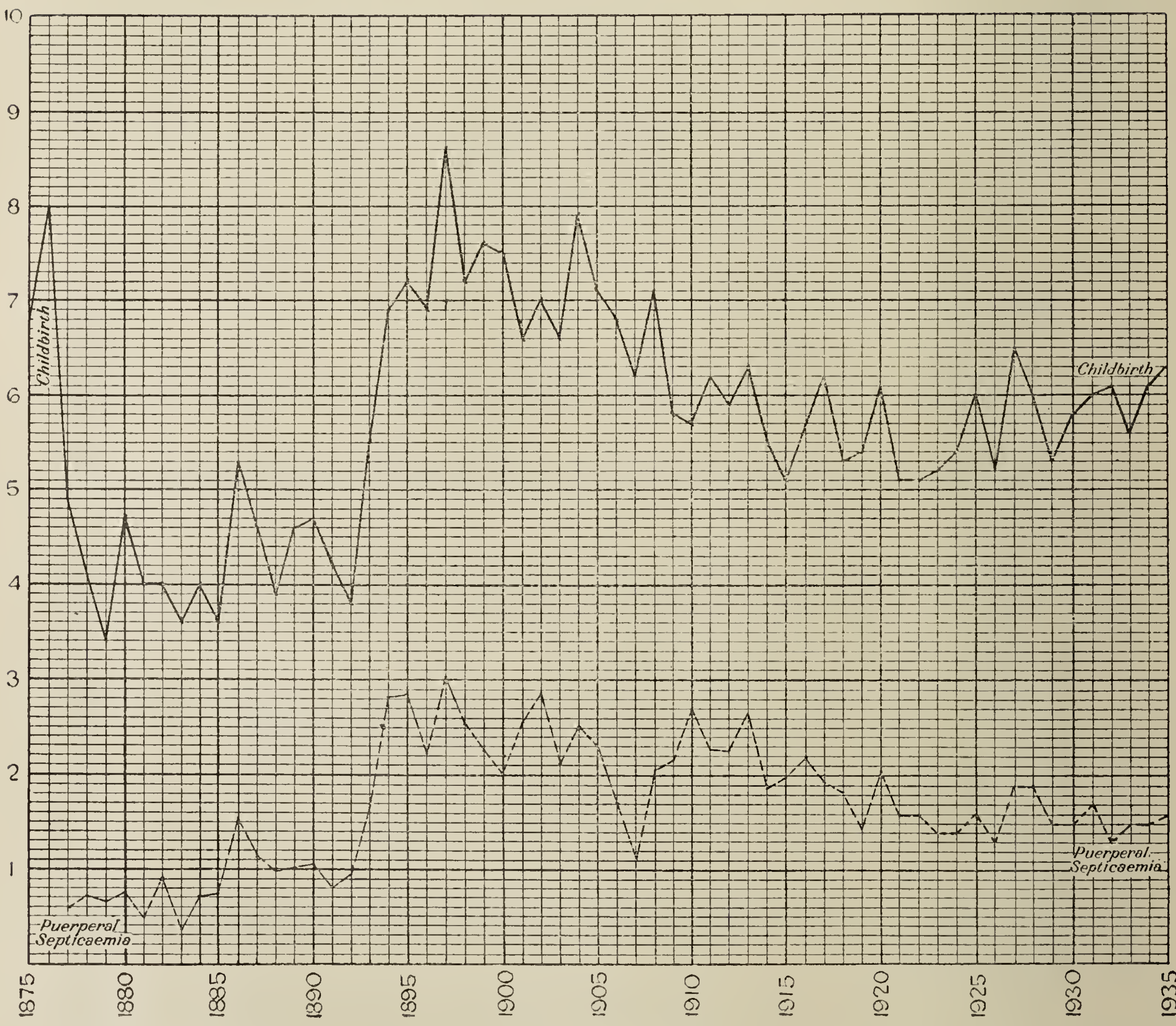
*Report of the Director-General of Public Health, 1934, pp. 35-78.

GRAPH No. 1.

CHILDBIRTH AND PUERPERAL SEPTICÆMIA.

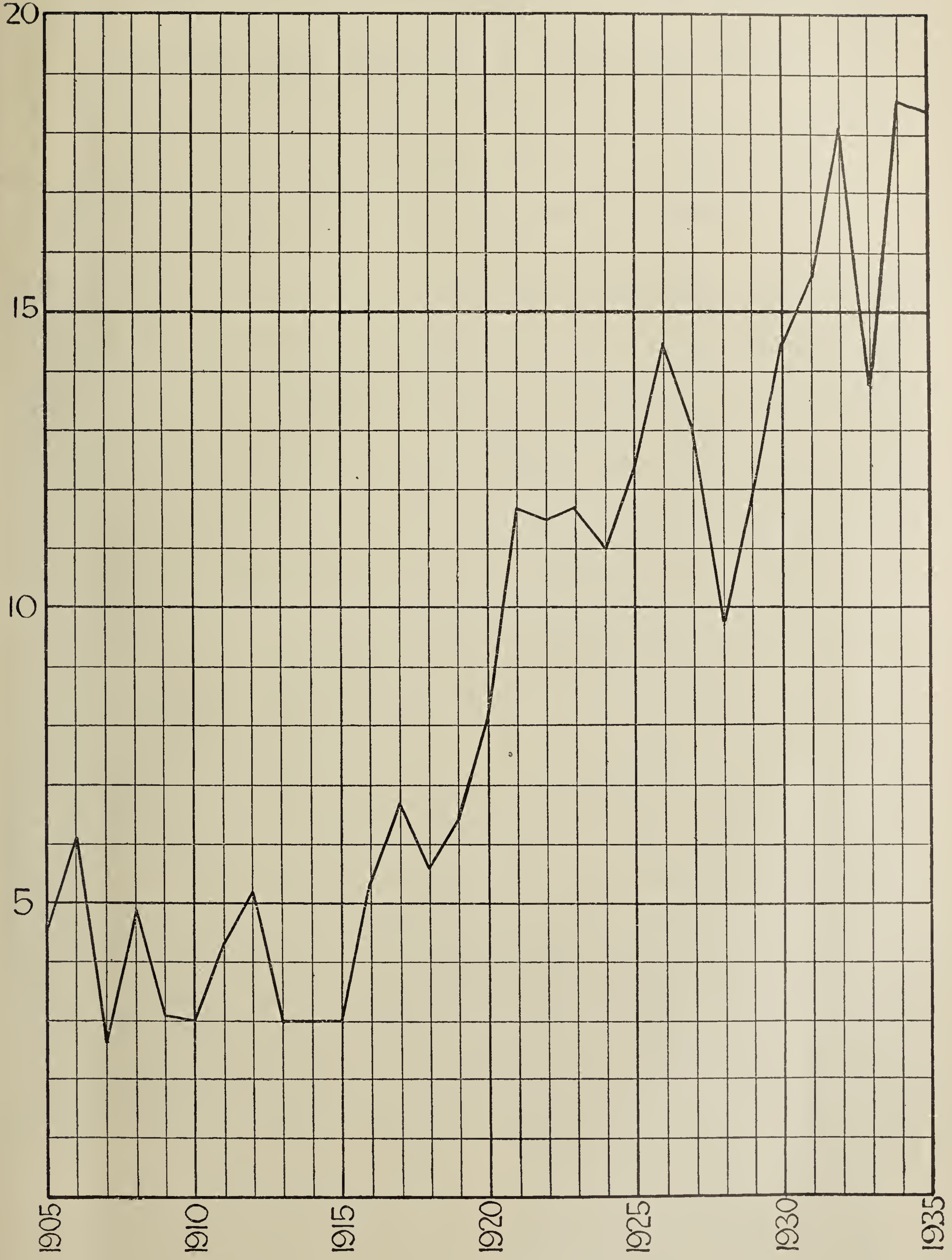
Annual Death Rate of Women per 1,000 Births in New South Wales, 1875-1935.



GRAPH No. 2.

ILLEGAL OPERATIONS.

Percentage of Total Maternal Deaths in New South Wales, 1905-1935.



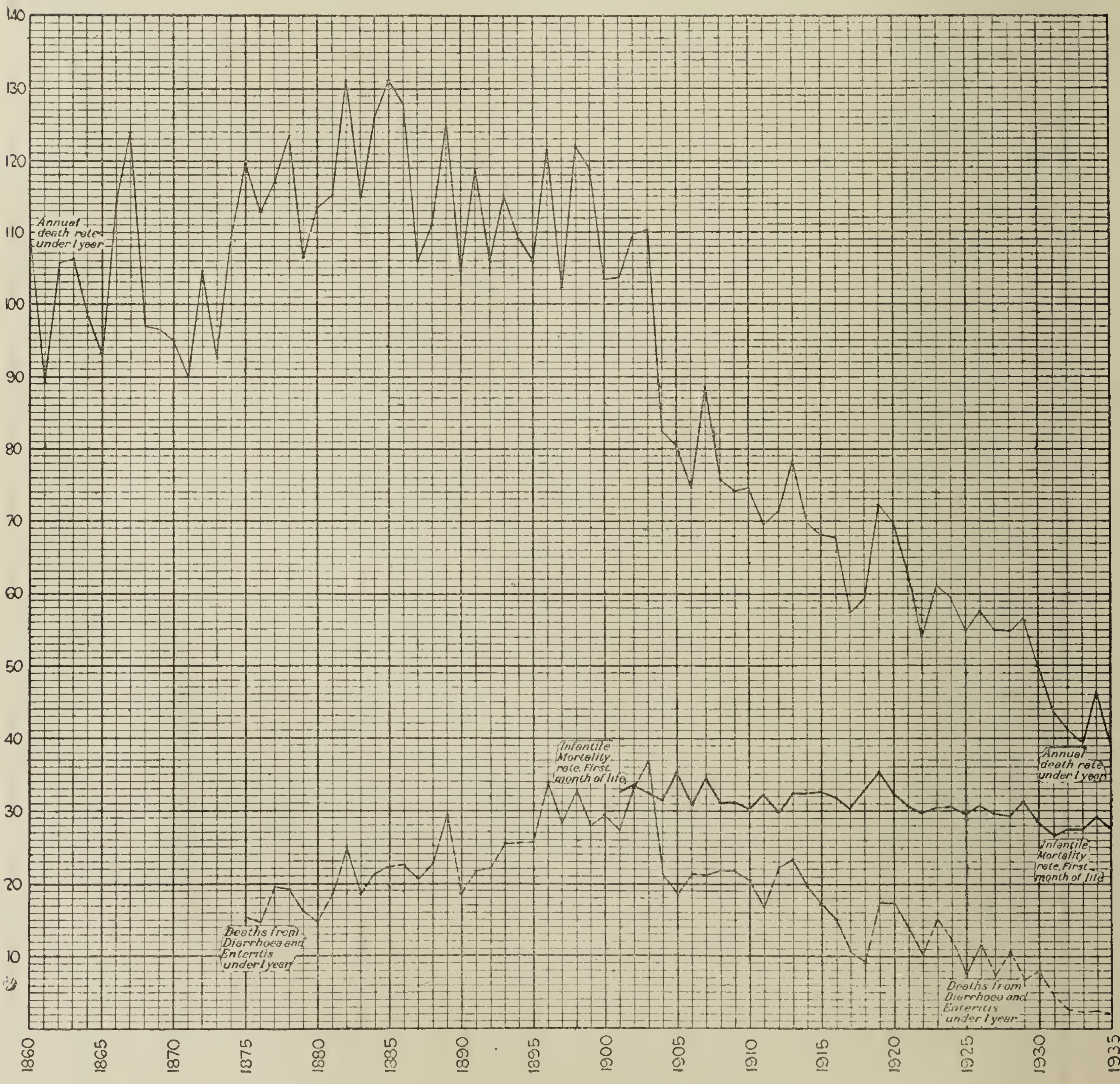
GRAPH No. 3.

INFANTILE MORTALITY IN NEW SOUTH WALES, 1875-1935.

Annual Death Rate of Children under 1 Year, per 1,000 Births ———

Deaths from Diarrhœa and Enteritis of Children under 1 Year, per 1,000 Births - - - - -

Infantile Mortality in the 1st Month of Life, 1900 to 1934, per 1,000 Births ━━━

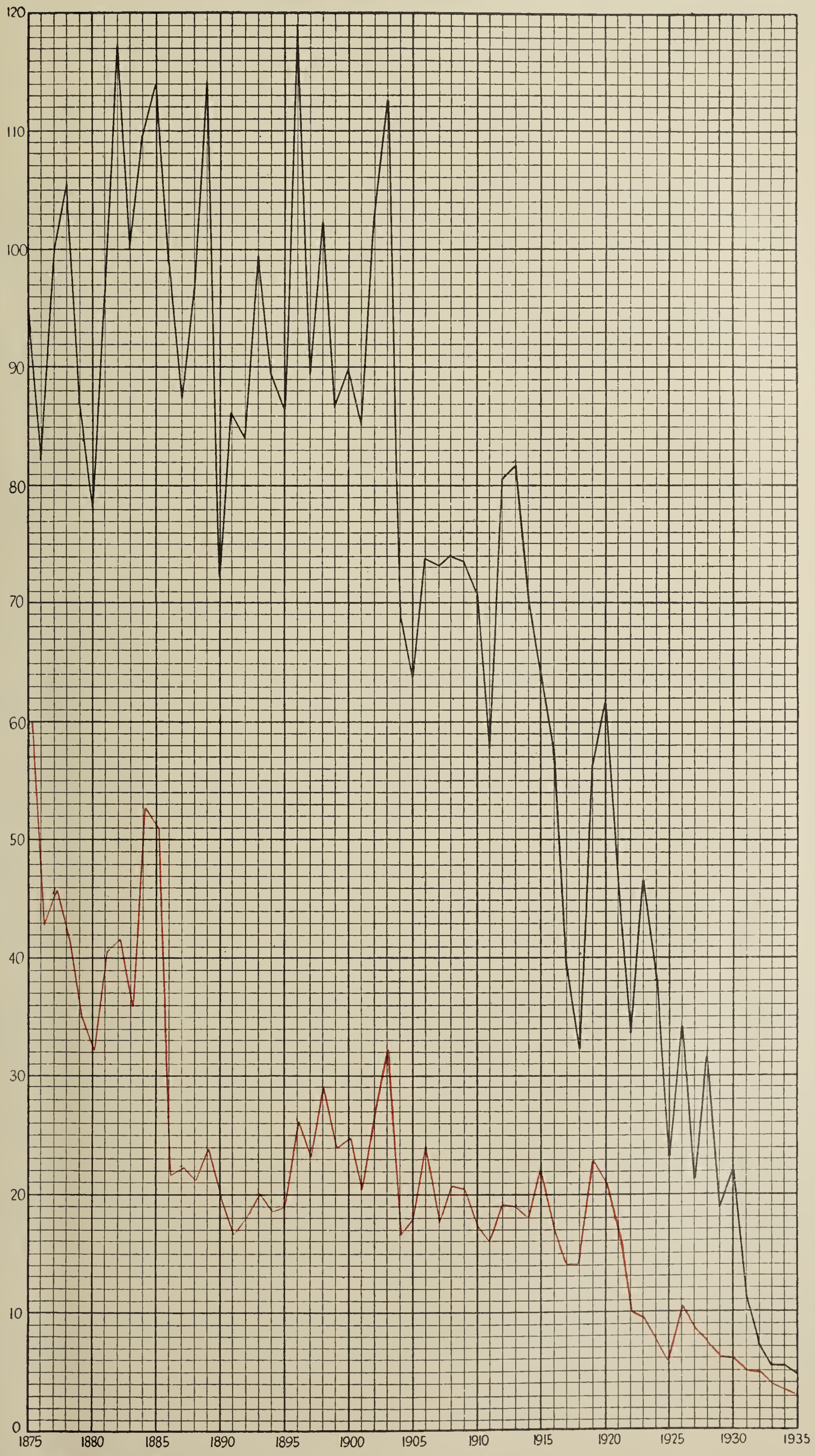


GRAPH No. 4.

DIARRHŒA and ENTERITIS.

Under 2 years—**BLACK** Line. Over 2 years—**RED** Line.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935



To be inserted between pages 44 and 45.

*14531—1

Visits of inspection to private hospitals and midwives are carried out throughout the State twice yearly as a routine measure, as well as on other occasions as circumstances require.

In one country town an unfortunate sequence of maternal deaths which occurred early in 1935 was made the subject of coronial inquiry. Full investigation of the circumstances associated with the cases was made by one of the supervisory nurses and myself, and I represented this Department at the inquest. The medical practitioners in the town and the nursing staff of the private hospital where some of the cases had been treated, gave every assistance in our inquiries and expressed their appreciation of the sympathetic attitude of the Department throughout the proceedings.

(The cases proved not to have been connected with each other in any way; and there was no question of there having been an "epidemic" of puerperal infection, as alleged.)

Later in the year an outbreak of puerperal infection occurred in an excellently staffed and equipped private hospital, two cases proving fatal. Here, again, every assistance was rendered by medical practitioners and nursing staff to the efforts of this Department to trace the source of infection. Five patients showed varying degrees of infection. All were confined during the same week, but all by different medical practitioners, assisted, except in one case, by different members of the nursing staff. (One nurse assisted at two of the deliveries.) The nursing duties during the puerperium, however, were performed by the entire staff of eight nurses.

None of the nurses gave a history of any recent infection, but cultures were made from swabbings taken from the nose and throat of every member of the staff, and in one case numerous haemolytic streptococci were recovered. This nurse had been attached to the staff for some years. There had been no outbreak of infection in the hospital before.

The hospital was closed for a period and fumigated, and the nurse was taken off duty and treated. No further cases occurred.

The supervisory nurses report a considerable improvement in the standard of maternity nursing and conduct of private hospitals since regular inspections have been carried out, and now that the period of midwifery training has been extended in New South Wales from six to nine months for general-trained nurses, and from twelve to eighteen months for untrained women, there should be an even greater improvement in the future.

PART II.—INFANT WELFARE.

The infant death-rate in New South Wales continues to fall yearly (with the exception that in the year 1934 there was a rise partly due to a particularly severe epidemic of whooping cough—171 infants dying from that cause).

In 1935, 1,762 infants under one year of age died in New South Wales—the rate being 39·44 per 1,000 births for the whole State and for the metropolis 35·61 (the lowest on record and one of the lowest in the world for a city of half a million inhabitants or over).

Of these 1,742 deaths, 70 per cent. (1,240) occurred during the first month of life and so far this neo-natal death-rate here, as in most other countries, has remained stubbornly irreducible.

It is felt that no small credit for the steady fall in the infant death-rate can be ascribed to the work of the Baby Health Centres conducted by this Division.

At the end of 1935 there were 140 of these Centres in operation throughout the State, nine new country Centres having been opened during the year—at Adelong, Katoomba, Blackheath, Goolgowi, Kyogle, Parkes, West Wyalong, Bulli and St. Mary's.

It was only possible to extend the work in this direction through the co-operation of the branches of the Country Women's Association in these towns. (The only exception to this is in the case of Bulli, where the Centre is maintained by the Shire Council.) The Country Women's Association provides the premises and equipment, this Department supplying and controlling the nursing staff.

As all the Centres are under the one departmental control and all the nurses are trained in mothercraft at the same ("Tresillian") Mothercraft Training Homes, as well as all being general trained nurses and generally having their midwifery certificates in addition, the same system of mothercraft is practised throughout the State and uniform advice is given at all Centres. There are 145 nurses employed in this important work, besides two Inspector-nurses and the six Supervisory-nurses already referred to.

The work performed at the Centres is purely preventive. No sick babies are treated or allowed to attend there, but, where necessary, are seen by the nurses in their own homes and referred to private doctors or to hospitals.

In addition, the mother of every new-born baby in the State, who lives within reasonable distance of a Baby Health Centre, is called on by the nurses with offers of advice and help as soon as the registration of birth is received from the local Registrar. In 1935, 18,096 of these first visits to new-borns were paid, and 55,561 subsequent visits to homes. Largely as a result—although in many cases babies were brought to the Centres even before such visits could be paid—25,440 new cases were enrolled during the year bringing the number of individual babies in attendance up to 53,003 (as against 47,236 in 1934). The total attendances at the Centres numbered 615,502, an increase of 80,129 above the number for 1934.

At the Centres, strong emphasis is laid on the fact that all women can at least partially breast-feed their babies. Expectant mothers are encouraged to attend for advice on preparation for this important function and many difficulties are thus averted. During 1935, 6,359 expectant mothers sought advice at the Centres.

PART II.—INFANT WELFARE—*continued.*

After the baby is born, regular supervision throughout infancy is encouraged. If it is found that the supply of breast-milk is deficient, steps are taken to increase the quantity, and artificial feeding—partial or complete—is not advised until it has first of all been proved conclusively by means of "test-feeds" that there actually is a deficiency. Even then, astonishingly successful results have been obtained; mothers who had completely weaned their infants and had applied belladonna plasters to dry up their milk have, by following treatment given at the Centres, fully restored the supply again. In some cases, artificially-fed infants several weeks old have been brought to the Centres having never been put to the breast at all, and by following the advice given there the mothers have, even at that late stage, succeeded in fully establishing lactation and continuing to breast-feed for nine months.

During 1935, 34,947 test-feeds were carried out at the various Baby Health Centres.

With the extension of the Centres and the spread of mothercraft knowledge, the source of summer diarrhoea has been almost eliminated from the community and the death-rate from this disease has fallen since the beginning of the century from considerably over 100 to well below 10 per 100,000 of the population, as may be seen in Graph VI.

Besides the large volume of work performed at the Baby Heath Centres there is much educational propaganda carried out in other ways by officers of the Division. Classes are given to Girl Guides, schoolgirls and Domestic Science students by the nurses and myself, and regular articles on mothercraft are published in the press throughout the State.

Through meetings arranged by far-reaching organisations such as the Country Women's Association and the Women's Section of the Agricultural Bureau, and whenever possible by radio talks, many women of the State are reached annually, and every opportunity to address such meetings is gladly seized.

Through the medium of the Girl Guides Association sound mothercraft is taught to the future mothers of the State.

During 1935 a departmental film dealing with mothercraft was made, which will be shown throughout the city and country.

I was a member of the Lord Mayor's Committee in connection with the Jubilee Maternal and Infant Welfare Appeal and also of the Medical Committee convened by the Lord Mayor to report upon the question of mal-nutrition among New South Wales children.

It is regretted that financial stringency, scattered population and other causes prevent the extension of Baby Health Centres to country districts as rapidly as one could wish, but in spite of all difficulties, the number of country Centres continues to increase and at the time of writing several more Centres have been, or shortly will be, opened—bringing the total for the State up to approximately 157.

I wish to express my sincere thanks to the members of the Country Women's Association and to the nursing staff and honorary medical officers of the Baby Health Centres for their co-operation and assistance as well as to the mothers of New South Wales for their loyal support and practical expression of appreciation of the help they receive, which was demonstrated by the fact that £612 was raised in the Centres towards the "Tresillian" Special Appeal.

ELMA SANDFORD MORGAN,
Director of Maternal and Baby Welfare.

TABLE Showing Work of Baby Health Centres.

Health Centres.	Visits to Individual New-born Babies.		Subsequent Visits to Homes of Babies.		Total Attendances, including Expectant Mothers.		Individual Babies Attending Centres.	
	1934.	1935.	1934.	1935.	1934.	1935.	1934.	1935.
Alexandria	247	235	1,546	1,519	9,370	10,175	766	730
Annandale	207	217	598	342	4,206	5,127	285	404
Ashfield	292	301	815	725	10,772	12,667	895	909
Auburn	311	219	506	440	7,480	8,005	541	496
Balmain	335	304	1,416	1,324	8,818	8,655	600	725
Bankstown	224	180	370	366	5,304	6,376	428	525
Punchbowl					1,785	2,340	172	223
Burwood	464	486	1,197	1,055	11,527	12,733	1,078	1,162
Campsie	515	476	888	811	14,468	14,542	1,431	1,398
Chatswood	201	271	955	618	11,957	15,713	956	968
Chippendale	291	290	1,062	528	7,270	7,341	276	280
Daceyville	253	363	1,063	1,207	9,562	10,649	825	900
Earlwood	146	174	...	625	5,474	6,468	316	356
Five Dock	240	232	579	716	6,025	8,512	280	675
Glebe	171	149	1,273	1,194	5,950	6,475	451	456
Granville	300	370	388	581	6,396	6,840	829	891
Liverpool					527	2,623	144	324
Homebush	83	80	288	412	3,233	4,723	220	308
Hornsby	175	194	625	574	4,127	4,847	345	365
Hurstville	459	423	599	715	10,427	12,836	975	1,157
Mortdale					2,096	2,217	206	192
Kogarah	250	266	480	371	7,185	8,772	580	560
Lane Cove	160	181	1,064	976	7,524	7,664	518	698
Leichhardt	521	472	967	583	8,683	9,480	792	721
Lidcombe	142	143	259	267	3,693	4,080	286	315
Manly	205	151	1,505	843	12,351	14,394	1,322	1,450
Marrickville	322	397	397	631	4,926	7,362	421	556
Mascot	303	265	1,391	1,221	7,792	7,812	684	580
Miller's Point	35	32	286	277	1,336	1,191	75	70
Mosman	201	224	1,127	864	10,736	11,936	746	701
Newtown	460	395	1,090	1,159	12,991	13,837	1,278	1,260
North Sydney	502	512	1,350	802	11,085	12,063	1,052	1,096
Paddington	271	248	884	732	11,220	11,553	831	819
Parramatta	201	192	874	611	10,448	10,709	1,000	1,030
Petersham	116	156	576	511	8,329	9,234	877	589
Pyrmont	67	64	596	625	2,663	2,618	172	152
Randwick	237	187	1,124	575	12,355	13,875	1,047	1,114
Rockdale	331	368	695	584	11,207	13,534	955	887
Rose Bay	398	384	1,118	939	12,573	13,428	1,172	1,363
Ryde	207	120	384	351	7,670	10,040	669	767
Gladesville					3,635	4,142	312	480
St. Peters	148	131	777	840	2,397	2,669	221	257
Surry Hills	201	163	1,418	714	7,702	8,000	612	680
Sutherland	71	63	143	131	1,411	1,897	60	140
Waverley	382	341	1,216	945	15,449	18,819	1,260	1,591
Woolloomooloo	170	215	853	781	9,773	8,033	684	660
Abermain	26	11	62	45	955	834	73	77
Adamstown	122	86	330	277	3,176	3,205	243	297
Adelong	...	17	...	16	...	452	...	37
Albury and The Weir	93	93	616	649	6,426	4,913	646	481
Armidale	148	145	331	887	932	2,292	167	240
Barellan	13	21	11	21	46	275	13	56
Bathurst	106	671	270	344	4,739	5,339	438	592
Berrima	5	9	44	31	155	107	21	17
Boggabri	42	36	50	93	652	925	68	63
Bowral	50	38	480	403	1,104	1,169	133	119
Broken Hill—Central	144	155	662	665	6,405	5,800	386	340
,, North	74	72	207	238	3,696	3,607	214	245
,, Railway Town	26	39	364	495	4,215	4,409	194	241
,, South	36	34	303	330	2,164	2,515	137	185
Bulli	...	28	...	9	...	221	...	51
Bundanoon	9	14	37	20	118	221	24	36
Bungendore	5	8	8	14	68	137	17	54
Casino	112	121	661	373	2,569	3,252	335	308
Cessnock	226	179	465	266	5,253	5,939	479	520
Cooma	74	70	209	273	1,177	1,554	191	260
Cootamundra	74	78	820	498	2,344	2,284	220	211
Corowa	20	80	260	384	743	1,469	90	187
Cowra	91	76	282	267	2,042	1,909	205	216
Crookwell	35	44	115	103	363	337	58	54
Culcairn	16	16	66	17	392	319	48	45
Dubbo	159	176	503	631	3,109	4,339	353	273
Forbes	96	60	526	219	2,522	2,163	281	216
Gilgandra	53	70	130	82	632	512	101	77
Glen Innes	71	83	231	195	2,171	2,653	195	177
Gosford	42	43	66	84	1,162	1,364	109	134
Woy Woy					897	537	83	37
Wyong					469	533	49	58
Goulburn	288	226	1,317	761	5,664	5,807	567	606
Grafton	118	97	322	318	4,392	4,853	492	579
Griffith	96	124	102	224	552	2,324	91	265
Goolgowi	...		...		...	115	...	31
Gundagai	51	75	172	237	633	1,181	53	69
Gunnedah	80	70	399	289	1,445	1,663	110	112
Hamilton	203	238	655	657	11,841	13,813	1,200	1,216

Table Showing Work of Baby Health Centres—*continued.*

Health Centres.	Visits to Individual New-born Babies.		Subsequent Visits to Homes of Babies.		Total Attendances, including Expectant Mothers.		Individual Babies Attending Centres.	
	1934.	1935.	1934.	1935.	1934.	1935.	1934.	1935.
Henty	19	14	83	67	351	287	60	52
Inverell	122	104	418	402	3,097	3,348	275	274
Junee	108	81	230	304	1,730	1,731	136	124
Katoomba	...	97	...	502	...	2,353	...	453
Blackheath	...	4	...	7	...	42	...	23
Kurri Kurri	107	119	705	703	4,621	5,560	446	309
Kyogle	...	69	...	105	...	818	...	101
Leeton	20	47	39	105	570	2,258	85	178
Lismore	368	319	373	303	758	5,410	521	610
Lithgow	259	228	1,278	1,171	4,737	4,776	486	486
Mayfield	164	119	881	821	9,122	10,741	820	901
West Wallsend					1,853	1,905	146	180
East Maitland	61	128	119	401	1,294	1,237	116	146
West Maitland	164		678		5,693	5,485	654	561
Millthorpe	...	10	...	27	63	297	23	40
Mittagong	28	45	224	220	644	777	90	79
Moree	75	74	679	606	2,522	3,145	284	225
Moss Vale	32	48	253	214	640	463	55	54
Muswellbrook	69	70	267	243	1,630	1,619	138	142
Narrabri	86	71	83	135	915	1,439	78	92
Narrandera	24	56	98	121	470	2,198	80	90
Narromine	19	27	52	73	713	982	78	184
Newcastle	360	328	955	1,084	7,944	8,998	439	814
Carrington					1,532	1,678	121	119
Stockton					1,826	1,820	135	116
New Lambton	141	133	280	175	1,662	1,614	190	175
Nowra	48	62	266	483	1,003	2,957	150	248
Orange	211	207	926	831	4,360	4,910	444	579
Parkes	...	66	...	168	...	942	...	132
Port Kembla	...	...	...	...	190	770	27	64
Queanbeyan	76	100	671	612	1,932	1,884	195	180
Michelago					107	164	26	24
Richmond	17	52	33	80	581	1,245	48	170
Riverstone	8	...	16	...	186	697	38	52
Singleton	67	76	333	292	1,368	1,613	120	91
South Singleton					857	850	63	48
St. Mary's	...	8	...	5	...	97	...	30
Tamworth	169	219	659	679	7,714	7,003	962	846
Temora	45	86	250	178	1,205	1,098	134	128
Trangie	...	25	...	62	21	579	14	58
Uralla	44	29	69	166	244	920	45	68
Wagga Wagga	214	193	286	356	5,610	6,215	511	547
Walcha	49	55	85	152	686	1,215	83	121
Wallsend	109	114	205	154	2,214	2,638	238	170
Waratah	52	79	279	322	1,917	1,376	129	144
Wellington	85	73	218	275	1,739	2,137	178	173
Weston	49	55	274	218	1,722	1,987	141	651
West Wyalong	...	2	...	3	...	261	...	57
Werris Creek	40	52	112	157	1,250	1,036	133	114
Windsor	48	38	77	97	646	1,060	97	101
Wollongong	155	159	516	459	4,216	4,343	359	435
Woodstock	10	9	30	29	170	153	18	21
Yass	58	59	1,228	1,267	2,263	2,517	222	247
Young	64	50	241	227	1,654	1,517	194	214
Total	17,403	18,096	61,212	55,561	535,373	615,502	47,236	53,003

1935.—" Test feeds," 34,947; expectant mothers advised, 6,359; new cases enrolled, 25,440.

REPORT OF PUBLICITY OFFICER FOR THE PERIOD 1927–1935.

1. Introduction.

The education of the public in the care and promotion of their health and that of their children has gradually come to be regarded in all civilised countries as an important and essential function of a Health Department.

Perhaps the first step in this direction in this State was the publication and distribution of pamphlets on the Control of Smallpox and Other Infectious Diseases, by the first Board of Health, from 1881 to 1890.

Additional pamphlets were issued from time to time as opportunity offered, and in 1914 a Publicity Branch (in the Ministerial Office) was established by the first Minister for Public Health (Hon. Fred. Flowers, M.L.C.).

Subsequently the officer appointed to take charge of the publicity work was transferred to the Premier's Department, and such publicity work as was possible was carried out by other officers of the Department in conjunction with their ordinary duties until 1926, when a publicity officer was appointed in December of that year, under the control of the Director General of Public Health.

2. Functions of Publicity Officer.

In the report of the Director General of Public Health for 1926 the reasons for that appointment and the work to be undertaken by this officer were set out as follows:—

> "In the belief that health is a purchasable commodity and that publicity work on the ways and means available to citizens for conserving and improving their own and their children's health is an important and essential part of this Department's activities, measures were taken to appoint a publicity officer. The duties of this officer are to promulgate an effective publicity campaign by the regular issue of articles and paragraphs to the daily, suburban and country papers, particularly on the subject of maternal and baby welfare."

Nine years have elapsed since that appointment was made, during which time a more effective State-wide health-educational campaign has been developed and is being carried on continuously.

3. Press Publicity.

Press publicity constitutes an important means of educating the public, and the press—particularly country and suburban newspapers—have co-operated whole-heartedly with the Department in this important work. About 200 newspapers in New South Wales are now publishing weekly articles on ante-natal care, mothercraft, child welfare, personal hygiene, care of the teeth, food and diet, exercise, accident prevention, control of tuberculosis and venereal disease, and many other aspects of promotnig good health.

To a lesser extent the city dailies have helped in disseminating the gospel of good health, but the pressure on their space is so great that unless articles possess that indefinable quality known as "news" value—as distinct from educational or propaganda value—more often than not they find their way into the editor's waste paper basket.

Health publicity is seldom sensational in character and it is generally unwise to make it so. Indeed, to attempt to do so is often dangerous, as has been proved in the case of injudicious warnings from non-departmental sources issued to the public in regard to cancer.

4. Reports of Baby Health Centres.

From the beginning of 1934 all newspapers circulating in areas where there is a Baby Health Centre are supplied with monthly reports on the work of the local Centre. This has proved a very useful and popular form of propaganda and has helped to render the work of the Centres better known.

It is encouraging to find how readily the papers will publish figures relating to the work of the local Centre and also any notes of the work carried out there. This is a factor of which full advantage is being taken in an endeavour to popularise the work of the Centres.

The camera has proved to be a very real aid in our press work, the use of blocks made from departmental photographs being popular with the newspapers and resulting in increased interest in the accompanying articles.

5. Results of Propaganda.

It is difficult to measure the results of educational propaganda of this nature, but some indication is afforded by the changed attitude of the public towards the Baby Health Centres.

For the first few years, our publicity campaign was directed mainly towards popularising the work of the Centres. Although the bulk of the metropolitan centres and those at Newcastle, Broken Hill, and in a number of large country towns had then been established for some years, the total number of individual mothers attending them, even in 1927, was only 19,000, and there was still a great deal of prejudice against what was termed "these new-fangled notions about feeding babies."

6. Prejudice Broken Down.

Largely as the result of the publicity campaign that prejudice has been broken down, and the number of mothers attending the Centres has rapidly increased until nearly 50,000 individual mothers are now enrolled, while last year the total attendances numbered 615,500.

The number ef individual mothers is not available for 1926, but the total attendences in that year numbered 216,000.

7. PUBLICATIONS.

Unfortunately, our educational work was greatly hampered at a critical stage by the financial stringency resulting from the economic depression.

It had been intended to publish booklets on various aspects of preventive medicine, but lack of funds precluded the issue of all but three—" The Baby Health Centres, What They Are and What They Do," " Healthy Motherhood," and " Food and Nutrition." A second edition of the first-mentioned has been issued and a third edition of " Healthy Motherhood " is now in the press.

8. ISSUE OF " OUR BABIES."

The need for a simple text book on Mothercraft for distribution to mothers at the Baby Health Centres (many of whom could not afford to purchase a book on the subject) was so urgent that—as funds were not available for its publication through the usual channels—arrangements were made for the printing and distribution of such a booklet at no cost to the department by a commercial printer, the entire cost being defrayed by advertising.

Accordingly, a booklet of 143 pages entitled " Our Babies " was compiled of which 130,000 copies have been distributed. A fourth edition comprising an additional 50,000 copies for free distribution is now in the press.

The demand for this book has been extraordinary and remarkable tributes to its value have been received from many quarters, including countries overseas.

9. SAFETY AND HEALTH.

Another booklet entitled " Safety and Health " has been compiled for the Safety League of New South Wales, and two editions have been published by that body under the same conditions as " Our Babies." A third edition is now in the press and this will bring the total free distribution up to nearly 100,000 copies.

This booklet also meets a long-felt want, and it is hoped will help to reduce all kinds of accidents, which take such a heavy toll of life and limb.

10. HEALTH WEEK CAMPAIGNS.

Another aspect of our educational work to which reference should be made is the conduct of Health Week Campaigns, which are proving an important factor in educating the people in regard to the care of their health.

Soon after my appointment, I was directed to take over the organisation of the annual Sydney Health Week, which in the intervening nine years has grown from a small affair into an influential public movement. About 100 organisations, government departments and public bodies are now represented on the New South Wales Health Week Council (as it is now called) and some idea of the extent of the campaign can be gauged from the size of the last year's printed programme which contained thirty-two pages.

11. HEALTH WEEK BOOKLET.

Apart from the organisation of an extensive programme of educational displays, meetings, addresses, broadcast lectures, and other features, a valuable booklet of 128 pages on health topics for old and young is issued under the auspices of Health Week, of which 30,000 copies are distributed annually.

So great is the demand for this booklet that more than twice that number of copies would not satisfy it.

12. BOOKLET FOR COUNTRY PEOPLE.

In 1934 the work was further extended by the publication in co-operation with the Country Women's Association of a special booklet for country people. It was felt that the women living in our out-back districts were in urgent need of instruction in feeding and caring for their families wisely and in promoting their own health.

To meet that need a special edition of the Health Week Booklet, comprising 30,000 copies, has been issued in each of the past two years and distributed through the Country Women's Association, and a further edition is now in the press. This latter is to be distributed through country Baby Health Centres.

13. NEWCASTLE HEALTH WEEK.

So successful have been the Sydney Health Week campaigns that in 1935 it was decided to extend the work to Newcastle, with the object ultimately of establishing local Health Week Committees in the principal country towns.

Accordingly, a strong committee under the chairmanship of the Mayor was formed at Newcastle to act in co-operation with and under the ægis of the New South Wales Health Week Council and a very extensive programme has been arranged for a campaign there in February, 1936.

This will include a " Clean-up " campaign by the local councils, broadcast health talks, addresses in factories, workshops and schools, press publicity, references to the importance of healthy bodies in all the churches, athletic and physical culture displays, a procession through the city, window displays, health week luncheons, and numerous functions.

A useful booklet of sixty-four pages and colour cover is being issued in connection with the campaign and will be widely distributed.

The Mayor intimated at a recent meeting of the committee that the Newcastle Council had been so impressed with the idea of Health Week that, if successful, it was intended that the movement should be continued and extended.

14. FIVE BOOKLETS PUBLISHED ANNUALLY.

The entire cost of publishing and distributing each of the five booklets mentioned is defrayed from advertising. This means that now no less than 160,000 booklets on health subjects are distributed gratis throughout New South Wales each year without cost to the Department.

These booklets are, of course, in addition to the departmental leaflets issued from the Government Printing Office, of which a large number are distributed annually in order to educate the public regarding certain diseases and other matters of public interest.

15. HEALTH EXHIBITIONS AND OTHER ACTIVITIES.

In addition to the annual Health Week Campaign, two large Health Exhibitions were held in the Sydney Town Hall in 1928 and 1931, respectively, the attendance at the first of which numbered 55,000, stated to be a record for any Exhibition held in Sydney (up to that date).

Similarly, a "Milk Week" Campaign was organised in 1929 under the direction of the Minister for Health, and several leaflets on Milk were compiled, of which over half a million copies were distributed.

A great deal of assistance was also rendered in connection with the "Wool Week" held in 1930.

In 1933 two Health Exhibitions were also conducted under the auspices of the Far West Children's Health Scheme, one at Nyngan and the other at Broken Hill, each of which was regarded as an unqualified success.

16. NO COST TO TAXPAYER.

As in the case of the five booklets referred to owing to Government funds not being available, each and all of these campaigns had necessarily to be self-supporting. Consequently, the expenditure (over £2,000 in the case of the first Health Exhibition and nearly an equal sum for the Milk Week Campaign) was met from revenue derived from the rent of floor space, advertising, admission to hall, and other similar sources. It is felt that this is a noteworthy feature.

17. MOTION PICTURES ON HEALTH SUBJECTS.

Another medium of which extensive use is being made is the motion picture. As a commencement, a number of educational films were imported from abroad, and a portable motion picture projector was purchased. This has been used extensively to screen motion pictures at meetings, health exhibitions, etc.

Subsequently, several health films were produced locally for the Department, dealing with milk, fruit, tuberculosis control, etc. These have been found to possess much greater interest to the public.

In 1934 a programme of progressive expenditure on publicity over a period of years was submitted and approved, and in each of the past three years a sum of about £500 has been provided for this purpose.

This programme included the production of sound motion pictures and posters. Already two motion pictures aggregating 4,000 feet, on Maternal and Infant Welfare, have been produced. It is intended, if funds permit, to compile a short sound film of, say, 1,000 feet from each of these.

Already the Department possesses a good collection of health films, and it is hoped to enlarge this as funds become available.

18. HEALTH POSTERS.

The programme referred to included the production and display of attractive coloured posters as an essential part of the campaign to educate the public in health matters.

In order to secure suitable poster designs a competition was held in 1934 for which prizes amounting to nearly £50 were offered. As a result, the Department secured about a dozen excellent designs, which have now been reproduced and of which supplies will shortly be available for distribution.

19. VENEREAL DISEASE NOTICES.

In order to combat the scourge of Venereal Disease 1,000 enamelled plate printed notices, emphasising the dangers of the disease and the need for treatment are being exhibited in lavatories on railway stations. The response has been quite good, and has resulted in increased attendances at the departmental clinic for males (and doubtless at other clinics also). As a result additional notices will be erected in all public lavatories throughout the State as soon as funds permit.

20. FILMS IN BABY HEALTH CENTRES.

In 1934 a special 16 mm. film featuring the work of the Baby Health Centres was produced and screened in all Health Centres in the Metropolitan area, on continuous motion picture projectors, the cost being defrayed from advertisements. This film proved popular with the mothers and helped to advertise the Centres.

21. BROADCASTING.

The radio is another means of educating the public, of which it is intended to make greater use than in the past. From time to time throughout the year talks by medical officers of the Department on some special aspect of health are broadcasted. During Health Week, a series of health talks are given over the different stations each day, but as soon as sufficient help is available, it is proposed to arrange for the delivery of health talks throughout the year.

22. VALUE OF PUBLICITY WORK.

From the foregoing it will be seen that as much as possible is being done under present circumstances to educate the public in safeguarding their health. This is admittedly a most important function of the Department, and it is hoped that additional funds and more assistance will be provided to enable the work to be undertaken on a more comprehensive scale than is possible at present.

A. G. WHITE,
Publicity Officer.

SECTION I—C.

COMMUNICABLE DISEASES.

1.—NOTIFIABLE INFECTIOUS DISEASES RECORDED IN NEW SOUTH WALES DURING THE YEAR ENDED 31st DECEMBER, 1935.

(F. S. Wearne.)

Public Health Acts, 1902–1932.

The Public Health Act, 1902, provides that the Governor may, by Proclamation in the *Government Gazette*, declare that any disease therein named is an infectious disease. No alteration to the existing list was made in 1935.

	Notifiable from—	Cases and Deaths Notified.					
		1933.		1934.		1935.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever and paratyphoid	1st January, 1898	188	28	141	19	173	20
Scarlet fever	,, ...	4,259	55	2,166	19	2,250	18
Diphtheria or membranous croup	,, ...	3,912	169	6,167	193	4,913	194
Bubonic plague	23rd January, 1900......	...	...	...	...	...	...
Infantile paralysis (including any form of acute anterior poliomyelitis, polioencephalitis or polio-myeloencephalitis)	1st February, 1912. Definition Re-proclaimed 14th August, 1931 ...	13	4	94	13	181	20
Epidemic cerebro-spinal fever (meningococcal meningitis)	11th October, 1915 ...	24	5	29	7	29	5
Encephalitis lethargica.........	1st April, 1926	11	15	6	15	7	16
Cholera	12th August, 1927	...	...	...	...	...	...
Typhus fever	,, ...	3	1	7	...	9	1
Yellow fever	,, ...	...	...	...	...	...	...
Puerperal infection	16th August, 1929	222	100	238	63	266	72
	Total	8,632	377	8,748	329	7,828	346
	Population at 31st Dec.	2,613,776		2,623,817		2,645,575	

The number of cases of the above diseases notified in each district in 1935 and the deaths therefrom are shown in Tables I-III (pp. 53-58). Tables showing the age and sex and seasonal incidence for the years 1934-35 are given in Tables IV and V (pp. 59–63). A summary of notifications from 1898 to 1935 will be found in Table VI (p. 64). Pulmonary tuberculosis is notifiable under the Public Health (Amendment) Act, 1915, and venereal diseases under the Venereal Diseases Act, 1918. (p. 69).

In 1935 there were 7,828 notified cases of infectious disease, compared with 8,748 cases in 1934, the decrease being due to fewer notifications of *diphtheria*, of which there were 4,913 cases with 194 deaths in 1935, compared with 6,167 cases and 193 deaths in 1934. From the increased death-rate the disease would appear to have been of a severer type in 1935 than in 1934. There was a slight increase in *scarlet fever* prevalence in 1935, 2,250 cases (18 deaths) being notified compared with 2,166 cases (19 deaths) in 1934.

Typhoid Fever.—There were 173 notified cases with 20 deaths compared with 141 cases and 19 deaths in 1934. The increase was wholly due to the greater number of cases notified from the metropolitan area (95 cases, 9 deaths compared with 49 cases and 3 deaths in 1934). Two outbreaks were associated with milk runs in the western suburbs of the metropolitan district, one in the Strathfield-Enfield area (32 cases; 1 death) and one at Auburn (15 cases). Particulars of these outbreaks are given in the Report of the Medical Officer of Health (p. 98).

Infantile Paralysis, which appeared in epidemic form towards the end of 1934, continued to be prevalent during the earlier months of 1935. For the year 181 cases (20 deaths) were notified, compared with 94 cases and 13 deaths in 1934. A graph is attached which shows the seasonal incidence of the six epidemics that have occurred in New South Wales from 1915 to 1935.

Puerperal Infection.—266 cases and 72 deaths were notified in 1935, further particulars of which are given in the report of the Director of the Maternal and Baby Welfare Division (p. 40). Copies of the report issued by that Division in 1934 on the 1,073 maternal deaths in New South Wales during the five years 1929-33 can be obtained on application.

Cerebro-spinal Meningitis.—29 cases and 5 deaths were reported in 1935, compared with 29 cases and 7 deaths in 1934.

Encephalitis Lethargica.—7 cases were notified. The Statistician's return shows 16 deaths. Investigations disclose that several of these deaths are due to non-notifiable forms of encephalitis such as cerebral abscess, brain tumours, etc.

Bubonic Plague.—No case of plague has been recorded in New South Wales since 1923. Systematic trapping of rats is continuous along the foreshores used by overseas shipping; no infection was found among the 3,644 rats examined in the Microbiological Laboratory during the year.

Smallpox.—No case of smallpox was reported in the State during 1935.

Leprosy.—2 cases of leprosy were admitted to the Lazaret in 1935, and 1 patient died; 18 persons (15 males and 3 females) remained under detention on 31st December, 1935. A summarised report concerning leprosy in New South Wales will be found on p. 137.

Endemic Typhus Fever.—9 cases (1 fatal) were notified in 1935. 4 cases (3 males, and 1 female) were from the North Coast area, and 5 cases (4 males, and 1 female) occurred in the metropolitan area. 2 cases, 1 of which proved fatal, occurred among male employees of a city hardware firm.

Pulmonary Tuberculosis—Notifiable under the Public Health (Amendment) Act, 1915.

Reports of the Tuberculosis Division and the Waterfall Sanatorium will be found on pp. 81 and 142. 1,572 cases of pulmonary tuberculosis were notified in 1935, an increase of 62 cases compared with 1934. There were 939 deaths from tuberculosis of the respiratory system, compared with 955 in 1934.

Venereal Diseases Act, 1918.

The Report of the Commissioner (p. 69) gives the number of notifications in 1935 as 4,829, an increase of 108 over the total for 1934. There has been a considerable expansion in the work of the Department's divisional clinic, and also at the clinic recently established at the Newcastle General Hospital.

A report on investigational work on gonorrhoea will be found on p. 73.

Table I.—Showing the number of notified cases of, and deaths from, the following diseases.—Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria and Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute anterior Poliomyelitis), Scarlet Fever, Typhoid Fever (including Paratyphoid), Pulmonary Tuberculosis, and Puerperal Infection in the Metropolitan Combined Districts for the year ended 31st December, 1935.

Municipality or Shire.	Estimated Mean Population, 1935.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Metropolitan Municipalities.																	
Sydney, City of	88,250	3	1	154	2	233	7	...	1	...	...	...	...	16	...	162	66
Alexandria	9,010	...	...	23	...	28	1	1	...	...	...	...	...	3	...	7	8
Annandale	12,220	3	...	33	...	37	2	...	...	...	...	...	...	2	1	13	9
Ashfield	39,690	5	1	36	...	54	...	...	...	...	...	...	...	3	...	31	10
Auburn	20,230	21	1	21	...	72	4	...	...	2	...	...	...	3	2	18	6
Balmain	28,270	...	...	63	...	73	3	...	...	1	...	...	...	6	...	32	11
Bankstown	25,930	1	...	30	...	69	4	...	...	1	...	...	...	4	...	23	9
Bexley	20,780	1	...	30	2	55	2	1	...	...	...	...	...	5	1	15	3
Botany	8,490	1	1	34	...	24	2	...	...	...	...	...	...	...	1	8	3
Burwood	19,620	1	...	18	...	28	1	4	...	2	...	...	...	...	1	7	3
Canterbury	80,040	2	1	123	1	130	8	1	...	...	...	...	...	10	3	60	34
Concord	23,400	2	...	17	...	53	1	5	1	...	...	...	...	6	...	9	5
Darlington	3,050	...	...	4	1	17	...	...	...	...	...	...	...	...	1	4	2
Drummoyne	29,590	...	...	24	...	19	...	3	...	...	...	...	...	6	...	29	8
Dundas	6,140	...	...	6	...	10	1	...	...	...	...	...	...	...	...	7	4
Eastwood	3,120	...	...	1	...	...	...	1	...	...	...	...	...	...	...	10	3
Enfield	14,860	11	1	20	1	41	1	...	...	...	...	...	...	1	...	24	6
Ermington and Rydalmere.	2,380	...	...	...	...	7	1	...	...	...	...	...	...	...	...	3	1
Erskineville	6,640	...	...	9	...	26	1	...	...	1	1	...	...	3	1	7	4
Glebe	19,850	...	...	21	...	78	3	...	...	...	...	...	...	6	...	25	11
Granville	19,870	1	...	4	...	30	3	1	...	...	...	...	...	1	1	15	8
Holroyd (Pitt and Merrylands wards).	8,580	...	...	15	...	35	2	...	...	...	...	...	...	...	...	2	9
Homebush	3,190	...	...	4	...	1	...	1	...	...	...	...	...	1	1	2	1
Hunter's Hill	9,130	1	...	7	...	11	...	1	...	...	...	...	...	...	...	11	2
Hurstville	23,010	...	...	26	...	42	3	1	...	...	...	...	...	2	2	27	11
Kogarah	31,210	1	1	36	...	52	2	2	...	2	...	1	...	2	...	23	10
Kuring-gai	29,470	2	...	6	...	40	1	1	...	...	...	1	...	3	...	27	18
Lane Cove	15,470	1	...	7	...	18	1	2	...	...	...	...	...	6	...	8	7
Leichhardt	30,270	2	...	57	...	67	4	...	...	...	...	...	...	4	...	30	7
Lidcombe	17,450	...	...	17	2	23	2	1	...	...	...	...	...	2	...	13	8
Manly	24,000	...	...	15	1	14	...	...	...	...	1	...	1	...	...	9	8
Marrickville	45,550	2	...	95	...	91	6	1	...	...	...	...	1	4	2	38	23
Mascot	14,730	1	...	45	...	61	3	1	...	...	...	...	...	2	...	12	8
Mosman	24,130	...	...	13	...	8	...	2	...	...	...	...	...	1	...	8	5
Newtown	25,260	1	1	52	...	70	1	...	...	...	...	...	...	4	1	42	15
North Sydney	50,150	1	...	41	...	112	5	2	...	2	2	...	1	7	2	46	17
Paddington	24,700	1	...	54	...	26	1	1	...	...	...	...	...	10	1	38	14
Parramatta	18,320	...	...	12	...	19	2	2	1	...	...	...	...	1	3	21	7
Petersham	27,180	...	...	26	...	43	1	1	...	...	...	...	...	13	1	18	15
Randwick	79,970	3	...	87	...	131	4	3	...	...	...	...	1	9	1	69	44
Redfern	18,790	...	...	39	2	76	2	...	...	...	...	...	...	11	...	35	20
Rockdale	39,730	...	...	39	...	48	2	1	...	1	...	...	...	5	...	13	14
Ryde	28,430	2	...	17	...	82	9	2	...	...	...	...	...	4	...	13	17
St. Peters	12,570	...	...	12	...	27	...	...	...	1	...	...	...	1	2	11	9
Strathfield	12,440	17	1	10	...	13	...	...	...	...	...	...	...	1	...	7	2
Vaucluse	7,450	1	...	4	...	2	...	2	...	...	...	...	1	...	...	9	2
Waterloo	11,690	...	...	53	...	61	1	...	...	1	...	...	...	3	...	13	3
Waverley	57,380	1	...	66	...	67	1	2	...	...	...	...	...	11	...	40	22
Willoughby	43,200	2	...	19	1	114	3	...	...	1	1	...	...	2	1	33	16
Woollahra	35,620	1	...	26	...	14	2	6	...	...	...	...	...	9	...	30	13

Table I.—*continued.*

Municipality or Shire.	Estimated Mean Population. 1935.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
EXTRA METROPOLITAN MUNICIPALITIES.																	
Cabramatta and Canley Vale.	6,530	1	...	6	...	8	1	1	...	...	...	...	1	...	...	7	3
Fairfield	9,070	1	...	14	...	24	1	...	...	...	...	...	...	1	...	4	6
Holroyd (Guildford and Wentworth wards).	7,820	...	...	15	...	35	1	...	...	...	...	...	...	1	...	2	2
Ingleburn	1,950	...	...	5	...	1	...	...	...	...	...	...	...	...	...	1	2
Liverpool	6,500	...	...	6	...	18	1	...	...	...	...	...	1	1	...	8	1
SHIRES.																	
Hornsby	23,190	...	...	11	...	32	1	...	...	...	...	...	...	1	2	16	22
Warringah	16,520	1	...	5	...	32	2	1	...	...	...	...	...	...	1	5	10
Harbour of Port Jackson	......	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	1,322,080	95	9	1,618	13	2,467	110	54	3	15	5	2	7	197	32	1,200	607

Table II.—Showing the number of notified cases of, and deaths from Cerebro-Spinal Fever (Meningococcal Meningitis), Diphtheria or Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute Anterior Poliomyelitis), Scarlet Fever, Typhoid Fever, including Paratyphoid, Pulmonary Tuberculosis, and Puerperal Infection in the Hunter River Combined District, for the year ended 31st December, 1935.

Municipality or Shire.	Estimated Mean Population. 1935.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
MUNICIPALITIES.																	
Adamstown	4,960	...	...	...	...	4	...	...	...	...	...	...	1	2	...	...	4
Carrington	3,240	...	...	1	...	14	...	...	...	...	...	...	...	1	...	3	2
Cessnock	14,590	1	...	4	...	41	2	...	...	...	...	...	...	...	...	3	1
Hamilton	19,460	...	...	17	...	12	...	6	1	...	...	...	...	...	...	9	2
Lambton	4,490	...	...	2	...	4	1	...	...	...	...	1	1	...	...	2	...
Maitland East	4,240	...	...	...	...	7	...	...	...	...	...	...	...	...	...	1	...
Maitland West	8,220	1	...	8	...	7	...	4	...	...	...	1	...	...	...	7	...
Merewether	8,360	...	...	14	...	20	...	1	...	...	...	...	...	1	...	5	4
Morpeth	1,050	8	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...
Newcastle	13,850	...	...	16	1	25	...	...	...	...	...	...	...	...	...	23	7
New Lambton	6,480	...	...	4	...	3	...	4	...	...	...	...	...	...	...	...	1
Raymond Terrace	940	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Singleton	3,730	...	...	2	...	3	...	1	...	...	...	...	...	1	...	...	1
Stockton	5,740	1	1	6	...	14	1	...	...	...	...	...	...	...	...	5	5
Wallsend	7,070	1	...	15	...	10	...	...	...	...	...	...	...	1	...	6	...
Waratah	20,740	...	...	20	...	62	1	...	...	...	...	...	...	3	5	11	1
Wickham	12,060	...	...	1	...	27	1	...	...	...	...	...	...	1	1	4	6
SHIRES.																	
Bolwarra	3,650	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1
Kearsley	27,440	...	...	10	...	35	...	2	1	...	...	...	...	...	2	8	9
Lake Macquarie	30,550	2	...	26	...	43	1	2	1	...	...	...	...	3	...	9	13
Port Stephens	4,250	...	...	...	...	3	...	...	...	...	...	...	...	1	1	1	1
Tarro	9,740	...	...	2	...	20	...	...	...	...	...	...	...	2	...	1	2
Harbour of Port Hunter	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	214,850	16	2	148	1	355	7	21	3	...	...	2	2	16	9	102	60

Table III.—Showing the number of notified cases of, and deaths from, Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria or Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute Anterior Poliomyelitis), Scarlet Fever, Typhoid Fever (including Paratyphoid), Pulmonary Tuberculosis, and Puerperal Infection, in the Remainder of State for the year ended 31st December, 1935.

Municipality or Shire.	Estimated Mean Population. 1935.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
MUNICIPALITIES.																	
Aberdeen	990	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Albury	10,910	3	1	...	...	52	...	...	...	...	...	...	...	...	2	1	2
Armidale	6,930	...	...	5	...	10	2	4	...	...	...	...	...	...	...	2	1
Ballina	3,100	...	...	1	...	7	2	1	...	...	...	...	...	...	...	3	1
Balranald	1,320	...	...	5	...	...	1	...	...	...	...	...	...	...	...	...	...
Barraba	1,490	...	1	...	...	...	...	2	...	...	...	...	...	...	...	2	...
Bathurst	10,590	3	...	9	...	24	...	...	...	...	...	...	1	3	2	5	3
Bega	2,410	...	...	...	...	3	...	...	...	...	...	...	...	...	...	2	...

Remainder of State.—Return showing the number of Cases, etc., from Country Municipalities—*continued.*

Municipality or Shire.	Estimated Mean Population. 1935.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Municipalities—*continued.*																	
Berry	2,730	...	...	13	...	4	...	...	1	...	...	...	...	1	1	...	1
Bingara	1,530	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	2
Blackheath	1,500	...	...	2	...	...	...	...	...	...	...	...	...	...	...	3	...
Bombala	960	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Bourke	1,830	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1
Bowral	3,130	...	...	4	...	4	...	...	...	...	...	...	...	...	...	...	1
Braidwood	1,100	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brewarrina	840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Broken Hill	26,790	11	...	17	...	9	...	...	...	...	...	...	...	...	...	17	8
Broughton Vale	330	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burrowa	1,550	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	1
Camden	2,460	...	...	3	...	1	...	...	...	...	...	...	...	...	...	3	...
Campbelltown	2,910	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Casino	5,750	...	...	...	...	6	...	...	...	...	...	...	...	...	...	2	...
Castlereagh	1,160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cobar	1,190	...	...	...	...	9	...	1	...	...	...	...	...	3	...	2	1
Condobolin	2,710	...	...	...	...	8	2	...	...	...	...	...	...	...	...	...	1
Cooma	2,030	...	...	1	...	4	...	...	...	...	...	...	...	...	...	2	2
Coonamble	2,790	...	...	...	...	5	...	2	...	1	...	...	...	...	...	...	1
Cootamundra	4,810	...	...	...	...	32	...	...	...	...	...	...	...	2	...	3	3
Corowa	2,840	...	...	5	...	24	...	...	...	...	...	...	...	...	...	1	1
Cowra	5,240	...	...	2	...	15	...	...	...	...	...	...	...	1	...	4	...
Deniliquin	3,290	...	...	2	...	70	1	2	...	...	...	...	...	...	...	3	2
Dubbo	8,460	...	...	18	...	37	1	1	...	...	...	...	...	1	...	2	3
Dungog	2,210	...	...	1	...	7	...	1	...	...	...	...	...	...	...	2	1
Forbes	5,500	...	...	12	...	17	2	...	...	...	...	...	...	...	...	5	4
Gerringong	900	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Glen Innes	5,430	1	...	1	...	12	...	...	...	...	...	...	...	1	...	...	1
Goulburn	15,060	1	...	2	...	5	...	1	...	...	...	...	...	...	...	3	2
Grafton	6,790	3	...	5	...	13	...	1	...	...	...	...	...	2	1	3	...
Grafton South	2,250	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grenfell	2,490	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Gulgong	1,760	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Gunnedah	3,790	1	...	1	...	17	...	...	...	...	...	...	...	...	...	5	2
Hay	3,260	2	1	...	...	9	...	3	...	...	...	...	...	...	...	2	2
Hillston	1,160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Illawarra North	7,960	...	...	4	...	19	1	...	...	1	...	...	...	...	...	...	1
Inverell	5,520	...	...	1	...	6	1	...	...	...	...	...	...	...	...	3	1
Jamberoo	1,130	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Junee	4,280	...	...	5	...	7	...	...	...	...	...	...	...	...	...	...	1
Katoomba	6,650	1	1	2	...	6	1	...	...	...	...	...	...	...	...	14	11
Kempsey	5,070	...	...	5	...	3	...	2	...	...	...	...	...	2	...	2	2
Kiama	2,510	...	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...
Lismore	12,370	1	...	8	...	21	...	2	1	...	...	...	...	...	...	4	2
Lithgow	13,510	...	...	7	...	7	...	1	...	...	...	...	...	2	...	2	3
Maclean	1,630	...	...	2	...	1	...	...	...	...	...	...	...	...	...	1	...
Manilla	1,840	1	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Mittagong	1,810	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Moama	790	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Molong	1,570	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...
Moree	4,580	2	...	2	...	14	1	...	...	...	...	...	...	...	...	2	3
Mudgee	4,080	...	...	...	...	103	...	...	...	...	...	...	...	...	...	2	2
Mullumbimby	1,390	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Murrumburrah	2,860	...	...	...	...	12	...	1	...	...	...	...	...	...	...	...	1
Murrurundi	1,230	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Murwillumbah	4,150	...	...	2	...	8	...	...	...	...	...	...	...	...	...	1	3
Muswellbrook	3,330	1	...	7	2	25	...	...	...	...	...	...	...	...	...	4	...
Narrabri	3,040	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Narrabri West	1,050	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Narrandera	4,220	...	...	2	...	18	...	5	...	...	...	...	...	...	...	6	2
Narromine	1,710	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...
Nowra	3,090	...	...	20	1	16	...	...	...	...	...	...	...	1	...	1	1
Nyngan	1,610	1	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1
Orange	9,830	1	...	9	...	189	7	2	1	...	...	...	...	1	...	12	6
Parkes	5,980	...	...	1	...	14	...	...	1	...	...	...	...	...	...	3	1
Peak Hill	1,250	...	...	1	...	...	...	...	...	1	...	...	...	1	...	1	1
Penrith	4,010	...	...	1	...	12	2	...	...	...	...	...	...	...	...	3	3
Picton	1,050	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...
Port Macquarie	1,860	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Queanbeyan	4,110	...	...	2	...	41	4	...	...	...	...	...	...	...	1	2	3
Quirindi	2,650	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Richmond	2,440	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Scone	2,260	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	1
Shellharbour	1,970	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Shoalhaven South	820	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
St. Mary's	3,040	...	...	1	...	12	...	...	...	...	...	...	...	...	...	...	...
Tamworth	10,310	2	...	19	...	110	6	1	...	...	...	...	...	...	2	6	2
Taree	4,800	...	...	2	...	4	...	...	...	...	...	...	...	1	1	2	...
Temora	4,000	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	4
Tenterfield	2,670	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	...
Ulladulla	1,490	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
Ulmarra	1,990	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...
Uralla	1,090	2	...	1	...	3	...	...	...	...	...	...	...	...	...	1	1

Remainder of State.—Return showing the number of Cases, &c., from Country Municipalities—*continued.*

Municipality.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
								Municipalities—*continued.*									
Wagga Wagga	12,020	...	...	3	...	15	...	3	...	...	...	...	1	...	...	5	...
Walcha	1,540	2	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Warren	1,640	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Wellington	4,390	...	...	1	...	20	2	1	...	...	...	...	...	...	...	5	2
Wentworth	850	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wilcannia	640	...	...	2	...	9	...	...	...	...	...	...	...	...	...	...	...
Windsor	3,290	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Wingham	1,720	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Wollongong	12,150	...	...	2	...	17	1	2	1	...	...	...	...	...	1	5	2
Yass	2,940	...	...	1	...	25	...	...	...	...	...	...	...	...	...	...	...
Young	4,130	...	...	1	...	1	...	2	...	...	...	...	...	...	...	3	...
Total Municipalities*	392,180	42	5	254	3	1,186	39	43	6	3	...	...	2	24	11	182	117

* This total includes Broken Hill which is shown separately in the summary.

Remainder of State.—Return showing the number of cases, &c., from Country Shires.

Shires.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
								Shires.									
Abercrombie	4,350	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	1
Amaroo	2,880	...	...	1	...	2	1	...	...	...	...	...	...	...	...	...	1
Apsley	2,990	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Ashford	3,880	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Bannockburn	3,420	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Barraba	2,110	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Baulkham Hills	8,270	1	...	5	...	13	...	...	...	...	...	...	...	...	...	1	1
Bellingen	6,210	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3
Berrigan	4,590	...	...	2	...	5	1	...	...	...	...	...	...	...	...	...	1
Bibbenluke	2,940	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blacktown	14,050	1	...	11	...	21	2	3	...	...	...	...	...	...	...	1	7
Bland	12,400	2	1	...	1	10	2	...	...	...	...	1	1	1	...	2	4
Blaxland	8,580	...	...	7	...	6	...	2	...	...	...	...	...	...	...	...	2
Blue Mountains	6,970	...	...	1	...	1	...	...	...	1	...	...	...	...	...	31	23
Bogan	1,950	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Boolooroo	3,540	...	...	1	...	8	...	1	...	...	...	...	...	...	1	...	1
Boomi	3,200	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...
Boree	6,910	...	...	2	...	8	1	1	...	...	...	...	...	...	...	1	...
Bulli	15,150	...	...	4	...	51	2	3	...	1	...	...	...	...	...	5	13
Burrangong	5,960	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Byron	7,990	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1
Cambewarra	1,190	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Canoblas	9,050	...	...	1	...	55	1	1	...	...	...	...	...	1	...	...	4
Carrathool	5,800	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...	2
Clyde	1,900	...	...	3	...	1	...	...	...	...	...	...	...	...	...	1	...
Cobborah	5,350	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	1
Cockburn	5,040	...	...	1	...	15	...	2	...	...	...	...	...	2	...	...	1
Colo	5,350	1	...	...	...	4	...	...	1	...	...	...	...	...	...	2	1
Conargo	1,200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coolah	2,170	...	...	...	...	5	...	...	...	...	...	...	...	...	...	1	2
Coolamon	7,180	...	...	4	...	10	1	...	...	...	...	...	...	...	...	3	1
Coonabarabran	6,920	...	...	1	...	5	1	...	...	...	...	...	...	...	...	1	...
Copmanhurst	3,470	...	...	6	...	3	...	1	...	...	...	...	...	...	...	...	1
Coreen	3,380	...	...	...	...	29	...	...	...	1	...	...	...	...	...	...	...
Crookwell	6,440	...	...	...	...	6	2	...	...	...	...	...	...	2	3	...	4
Cudgegong	5,880	...	...	...	...	58	1	1	...	...	...	1	1	...	...	...	...
Culcairn	5,480	...	...	2	...	5	...	...	...	...	...	...	...	...	...	...	1
Dalgety	3,610	...	...	...		1	...	...	...	...	...	...	...	...	...	1	...
Demondrille	3,310	...	...	...	...	3	...	...	...	1	...	...	...	...	1	...	...
Dorrigo	10,970	...	...	2	...	8	1	...	...	2	...	...	...	2	1	...	...
Dumaresq	4,400	2	1	2	...	1	...	6	...	...	...	...	...	...	1	...	...
Erina	17,480	...	...	8	...	10	2	1	...	...	...	...	...	...	1	2	3
Eurobodalla	5,320	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	2
Gilgandra	5,520	...	...	2	...	51	...	...	...	...	...	...	...	...	1	...	1
Gloucester	4,520	...	...	3	...	...	...	...	...	...	...	...	...	1	...	...	...
Goobang	6,850	...	...	2	...	3	...	...	...	...	...	...	...	...	...	3	2
Goodradigbee	3,580	...	...	...	...	4	1	...	...	...	...	...	...	...	...	...	...
Gostwyck	4,280	1	...	...	...	6	1	2	1	...	...	...	...	...	...	...	...
Gundagai	5,380	1	...	6	...	25	...	...	...	...	...	...	...	...	...	...	...
Gundurimba	4,660	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Gunning	3,210	...	...	1	...	4	1	...	...	...	...	...	...	...	1	1	...
Guyra	6,630	...	...	5	...	8	...	2	...	...	...	...	...	...	...	1	...
Gwydir	1,830	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Harwood	4,660	...	...	...	...	8	1	...	...	...	...	...	...	...	...	1	1
Hastings	9,460	...	...	...		2	...	1	...	1	...	...	...	...	...	...	1

REMAINDER OF STATE.—Return showing the number of cases, &c., from Country Shires—*continued.*

Shires.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
SHIRES—*continued.*																	
Holbrook	2,690	1	...	2	...	6	...	...	...	...	...	...	...	...	...	...	...
Hume	5,410	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...
Illabo	2,910	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Illawarra Central	9,240	...	...	2	...	14	1	1	...	2	...	...	...	1	...	...	1
Imlay	4,850	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Jemalong	4,440	...	...	4	...	1	1	...	...	...	...	...	1	...	...	...	...
Jerilderie	1,800	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	1
Jindalee	2,590	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...
Kyeamba	4,620	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	3
Kyogle	11,950	...	...	2	...	17	...	6	...	...	...	1	1	1	...	...	1
Lachlan	8,280	...	...	1	...	4	...	3	...	...	...	...	...	...	...	2	3
Liverpool Plains	5,350	2	...	3	...	8	...	1	...	...	...	...	...	...	...	...	1
Lockhart	5,580	...	...	5	...	7	2	7	...	...	...	...	...	...	...	...	...
Lyndhurst	7,470	...	...	12	...	17	1	...	...	...	...	...	...	1	...	...	...
Macintyre	1,630	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Macleay	8,790	...	...	...	...	1	...	...	...	...	...	...	...	3	1	...	1
Macquarie	4,580	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...
Mandowa	1,970	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Manning	14,240	...	...	...	...	3	...	1	2	...	...	...	...	...	...	...	1
Marthaguy	2,200	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Merriwa	3,130	...	...	13	...	2	...	1	...	...	...	...	...	...	...	...	...
Mitchell	4,200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monaro	2,630	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1
Mulwaree	7,280	...	...	1	...	...	...	...	...	...	...	...	...	2	1	...	1
Mumbulla	4,680	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Murray	3,210	1	...	3	...	2	...	...	...	...	...	...	...	...	...	...	...
Murrumbidgee	830	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1
Murrungal	2,640	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Muswellbrook	4,080	...	...	...	...	7	...	...	...	...	...	...	...	1	...	1	1
Nambucca	7,720	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...
Namoi	8,150	...	...	...	...	21	...	...	...	...	...	...	...	...	...	1	2
Narraburra	4,360	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Nattai	3,790	...	...	4	...	...	...	...	...	...	...	...	...	...	...	1	1
Nepean	3,450	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...
Nundle	1,810	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Nymboida	2,840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oberon	2,950	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Orara	2,160	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Patrick's Plains	6,690	1	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...
Peel	6,560	...	...	3	...	31	1	...	...	...	...	...	...	...	...	1	2
Rylstone	5,690	...	...	4	...	3	1	1	...	...	...	...	...	...	...	...	2
Severn	6,310	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	2
Stroud	6,510	...	...	2	...	4	...	1	...	...	...	...	...	2	1	...	...
Sutherland	14,180	1	...	6	...	23	1	5	1	...	...	...	...	2	...	3	5
Talbragar	4,000	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Tallaganda	2,510	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Tamarang	3,040	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tenterfield	5,400	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Terania	7,700	1	...	2	...	13	...	...	...	...	...	...	...	...	...	...	...
Timbrebongie	4,430	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	3
Tintebar	5,330	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Tomki	4,030	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tumbarumba	2,990	...	...	...	...	8	1	...	...	...	...	...	...	...	...	...	...
Tumut	7,900	...	...	3	...	29	...	...	...	...	...	...	...	...	...	1	2
Turon	4,400	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Tweed	13,550	...	...	...	...	8	...	...	...	...	...	...	1	...	...	1	3
Upper Hunter	4,870	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	1
Urana	3,260	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...
Wade	8,750	...	...	22	...	28	1	2	...	...	...	...	...	...	...	2	1
Wakool	4,310	...	...	4	...	5	...	1	...	...	...	...	...	...	...	...	...
Walgett	3,700	...	...	2	...	3	...	...	...	...	...	...	...	...	...	1	1
Wallarobba	5,300	...	...	2	...	2	1	...	...	...	...	...	...	...	...	...	...
Waradgery	1,090	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...
Warrah	2,220	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Waugoola	6,340	...	...	1	...	12	...	...	...	1	...	...	...	...	1	...	1
Weddin	4,040	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Willimbong	7,950	...	...	15	...	41	...	2	...	...	...	...	...	1	1	1	3
Windouran	810	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Wingadee	3,510	...	...	1	...	3	...	...	...	...	...	...	...	1	...	...	1
Wingeearribee	6,690	...	...	5	...	4	1	2	...	...	...	...	...	1	...	2	2
Wollondilly	6,500	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3
Woodburn	4,530	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Woy Woy	2,600	...	...	...	...	1	1	...	1	...	...	...	...	1	...	3	...
Wyaldra	2,440	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Yallaroi	4,380	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Yanko	5,230	...	...	2	...	7	...	...	...	...	...	...	...	...	...	3	2
Yarrowlumla	2,170	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Total Shires	692,220	19	4	228	1	905	38	63	8	11	...	3	5	29	20	87	149

REMAINDER OF STATE.—Return showing the number of cases, &c., from Country Shires—*continued.*

COUNTRY POLICE DISTRICTS.

WESTERN DIVISION (UNINCORPORATED).

Shires.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Pulmonary Tuberculosis.	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Police District	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Balranald	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bourke	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brewarrina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Broken Hill	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cobar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hillston	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Menindie	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Mitchell	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nyngan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Walgett	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wentworth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wilcannia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total*	19,020	1	...	2	...	...	...	...	...	...	...	...	...	...	...	1	6
Migratory	5,065	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lord Howe Island	160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Outside the State—																	
Fed. Capital Territory	...	...	...	...	...	5	...	1	...	...	...	...	...	...	...	...	...
Queensland	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Victoria	...	...	...	...	...	27	...	1	...	...	...	...	...	...	...	...	...
South Australia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	2,645,575	173	20	2,250	18	4,913	194	181	20	29	5	7	16	266	72	1,572	939

* Population and deaths for unincorporated parts of Western Division can be shown in total only.

SUMMARY of Notified Cases and Deaths, 1935.

District.	Typhoid Fever.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Pulmonary Tuberculosis.		Puerperal Infection.	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Metropolitan Combined Sanitary District.	95	9	1,618	13	2,467	110	54	3	15	5	2	7	1,200	607	197	32
Hunter River Combined District	16	2	148	1	355	7	21	3	...	...	2	2	102	60	16	9
*Broken Hill District	11	...	17	...	9	...	...	...	...	...	...	...	17	8	...	...
Remainder of State—																
Municipalities	31	5	237	3	1,177	39	43	6	3	...	...	2	165	109	24	11
Shires	19	4	228	1	905	38	63	8	11	...	3	5	87	149	29	20
Police Districts	1	...	2	...	...	...	...	...		...	...	...	1	6	...	...
Lord Howe Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	173	20	2,250	18	4,913	194	181	20	29	5	7	16	1,572	939	266	72

* Excluded from Municipalities' totals.

TABLE IV.—Table showing Age and Sex Incidence, and Mortality, in the Metropolitan Combined District, Hunter River Combined District, Broken Hill District, and Remainder of State, of the notified cases of Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria and Membranous Croup, Infantile Paralysis (Acute Anterior Poliomyelitis), Encephalitis Lethargica, Scarlet Fever, Typhoid Fever (including Paratyphoid), and Pulmonary Tuberculosis, Puerperal Infection, *for the years endieg 31st December, 1934, and 1935.*

Age Period.	Typhoid and Paratyphoid.						Scarlet Fever.						Diphtheria.						Encephalitis Lethargica.						Infantile Paralysis.						Cerebro-spinal Meningitis.						Pulmonary Tuberculosis.						Puerperal Infection.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total	M.	F.	Total.
METROPOLITAN COMBINED DISTRICT, Year ended 1934.																																																
All ages	28	21	49	2	1	3	534	780	1,314	4	3	7	1,214	1,532	2,746	43	50	93	2	2	4	3	6	9	44	33	77	3	3	6	11	3	14	1	2	3	758	433	1,191	369	222	591	...	187	187	...	28	28
Under 1 year	...	...	...	...	...	...	6	8	14	...	...	...	24	19	43	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...	3	...	3	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...
1–4	1	2	3	...	...	...	173	166	339	2	2	4	454	450	904	23	23	46	...	...	...	...	...	...	23	19	42	1	1	2	3	2	5	1	...	1	...	2	2	...	...	...	...	...	...	...	...	...
5–14	10	1	11	...	...	...	260	375	635	...	1	1	646	779	1,425	19	23	42	...	...	...	...	1	1	17	13	30	1	2	3	4	1	5	...	...	...	8	5	13	3	1	4	...	1	1	...	...	...
15–24	8	9	17	...	...	...	38	93	131	2	...	2	36	136	172	...	1	1	2	1	3	...	2	2	2	...	2	...	...	...	...	...	...	...	...	...	83	112	195	26	50	76	...	68	68	...	3	3
25–34	3	2	5	1	...	1	31	91	122	...	...	...	30	94	124	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	166	157	323	62	59	121	...	84	84	...	16	16
35–44	4	1	5	...	...	...	19	38	57	...	...	...	18	39	57	...	1	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	173	78	251	69	44	113	...	26	26	...	9	9
45–54	2	5	7	1	1	2	5	8	13	...	...	...	6	10	16	1	2	3	...	1	1	1	1	2	...	...	...	1	...	1	...	...	...	...	...	...	188	45	233	107	38	145	...	2	2	...	...	...
55–64	...	1	1	...	...	...	1	1	2	...	...	...	...	4	4	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	109	19	128	60	16	76	...	...	...	...	...	...
65 and over	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31	15	46	42	14	56	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	6	...	...	...
METROPOLITAN COMBINED DISTRICT, Year ended 1935.																																																
All ages	52	43	95	8	1	9	595	1,023	1,618	9	4	13	1,214	1,253	2,467	54	56	110	1	1	2	4	3	7	33	21	54	2	1	3	12	3	15	4	1	5	690	510	1,200	387	220	607	...	197	197	...	32	32
Under 1 year	...	...	...	...	...	...	8	9	17	...	1	1	38	29	67	4	1	5	...	1	1	...	1	1	...	1	1	...	...	...	3	1	4	2	1	3	1	2	3	...	...	...	...	...	...	...	...	...
1–4	4	...	4	...	...	...	166	210	376	3	1	4	499	421	920	30	30	60	...	...	...	...	...	...	10	9	19	...	1	1	2	1	3	...	...	...	...	1	1	1	...	1	...	...	...	...	...	...
5–14	13	14	27	...	...	...	330	522	852	3	...	3	581	529	1,110	20	23	43	...	...	...	...	...	...	22	10	32	1	...	1	2	...	2	1	...	1	10	8	18	4	2	6	...	...	...	...	...	...
15–24	12	14	26	1	...	1	45	134	179	1	...	1	47	137	184	...	2	2	...	...	...	1	...	1	1	1	2	...	...	...	2	...	2	...	...	...	71	156	227	23	38	61	...	57	57	...	9	9
25–34	12	8	20	3	...	3	28	98	126	1	1	2	28	77	105	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	111	163	274	50	67	117	...	97	97	...	14	14
35–44	4	3	7	1	...	1	12	37	49	...	1	1	15	39	54	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	1	...	1	...	...	...	164	80	244	78	35	113	...	38	38	...	9	9
45–54	5	3	8	1	1	2	3	8	11	1	...	1	4	15	19	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	1	176	49	225	97	39	136	...	...	...	...	...	...
55–64	1	1	2	1	...	1	1	4	5	...	...	...	2	4	6	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	...	103	33	136	77	23	100	...	...	...	...	...	...
65 and over	1	...	1	1	...	1	1	1	2	...	...	...	...	2	2	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	54	18	72	57	16	73	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5	...	...	...
HUNTER RIVER COMBINED DISTRICT, Year ended 1934.																																																
All ages	10	8	18	3	1	4	78	131	209	1	3	4	254	293	517	11	7	18	...	1	1	1	2	3	1	...	1	...	...	...	5	...	5	1	...	1	34	37	71	40	28	68	...	13	13	...	7	7
Under 1 year	...	...	...	...	...	...	2	...	2	...	...	...	6	8	14	3	3	6	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
1–4	1	...	1	...	...	...	33	30	63	...	1	1	92	87	179	8	...	8	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5–14	2	5	7	...	...	...	35	63	98	...	...	...	114	130	244	...	4	4	...	1	1	...	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15–24	3	1	4	...	...	...	3	9	12	...	...	...	26	19	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	7	8	1	4	5	...	7	7	...	2	2
25–34	2	...	2	2	...	2	3	22	25	1	2	3	9	22	31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	19	23	4	9	13	...	4	4	...	3	3
35–44	2	...	2	1	...	1	2	4	6	...	...	...	5	14	19	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	8	3	11	9	3	12	...	1	1	...	2	2
45–54	...	2	2	...	...	...	...	1	1	...	...	...	...	5	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	6	19	13	4	17	...	...	...	...	...	...
55–64	...	...	...	...	1	1	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	1	8	8	5	13	...	...	...	...	...	...
65 and over...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	5	3	8	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	...	1	1	...	...	...	2	7	9	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...

TABLE IV.—Table showing Age and Sex Incidence, and Mortality, in Remainder of State—*continued.*

Age Period.	Typhoid and Paratyphoid.						Scarlet Fever.						Diphtheria.						Encephalitis Lethargica.						Infantile Paralysis.						Cerebro-spinal Meningitis.						Pulmonary Tuberculosis.						Puerperal Infection.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
HUNTER RIVER COMBINED DISTRICT, Year ended 1935.																																																
All ages	13	3	16	2	...	2	48	100	148	...	1	1	161	194	355	5	2	7	...	2	2	...	2	2	16	5	21	1	2	3	...	...	...	...	...	...	58	44	102	37	23	60	...	16	16	...	9	9
Under 1 year	...	...	...	...	...	...	1	...	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4	1	1	2	...	...	...	12	10	22	...	...	...	55	64	119	2	2	4	...	...	...	...	...	...	9	4	13	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5–14	4	2	6	1	...	1	20	47	67	...	...	...	76	80	156	3	...	3	...	...	...	...	...	...	5	1	6	...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
15–24	4	...	4	...	...	...	7	20	27	...	1	1	12	23	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	14	18	1	5	6	...	6	6	...	4	4
25–34	1	...	1	...	...	...	5	17	22	...	...	...	10	15	25	...	...	...	...	2	2	...	2	2	1	...	1	...	1	1	...	...	...	...	...	...	11	7	18	8	8	16	...	4	4	...	2	2
35–44	...	...	...	1	...	1	...	3	3	...	...	...	4	8	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	10	27	7	3	10	...	6	6	...	3	3
45–54	1	...	1	...	...	...	1	2	3	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	4	15	7	1	8	...	...	...	...	...	...
55–64	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	5	17	7	4	11	...	...	...	...	...	...
65 and over...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	6	7	2	9	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	2	1	3	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BROKEN HILL DISTRICT, Year ended 1934.																																																
All ages	5	5	10	...	...	...	12	24	36	...	...	...	22	20	42	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	10	3	13	15	7	22	...	...	...	...	...	...
Under 1 year	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4	...	...	...	...	...	...	5	4	9	...	...	...	9	5	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5–14	...	2	2	...	...	...	5	12	17	...	...	...	6	10	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15–24	3	...	3	...	...	...	1	4	5	...	...	...	3	4	7	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	1	2	1	...	1	...	...	...	...	...	...
25–34	1	1	2	...	...	...	...	2	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	3	3	...	...	...	...	...	...
35–44	...	1	1	...	...	...	...	1	1	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	3	1	4	...	...	...	...	...	...
45–54	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	5	5	1	6	...	...	...	...	...	...
55–64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3	1	4	...	...	...	...	...	...
65 and over..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	...	...	...	...	...	...
Not stated ...	1	1	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BROKEN HILL DISTRICT, Year ended 1935.																																																
All ages	7	4	11	...	...	...	6	11	17	...	...	...	2	7	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	5	17	7	1	8	...	...	...	...	...	...
Under 1 year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4	...	...	...	...	...	...	...	1	1	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5–14	3	2	5	...	...	...	5	8	13	...	...	...	2	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15–24	3	1	4	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...
25–34	1	...	1	...	...	...	1	1	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4	1	...	1	...	...	...	...	...	...
35–44	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	1	...	1	...	...	...	...	...	...
45–54	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	3	...	3	...	...	...	...	...	...
55–64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4	2	1	3	...	...	...	...	...	...
65 and over...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE IV.—Table showing Age and Sex Incidence, and Mortality, in Remainder of State—*continued.*

REMAINDER OF STATE—Year ended 1934.

Age Period.	Typhoid and Paratyphoid.						Scarlet Fever.						Diphtheria.						Encephalitis Lethargic.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M	F.	Total.
All ages	41	23	64	10	2	12	234	373	607	4	4	8	1,274	1,558	24832	41	41	82	...	1	1	1	2	3
Under 1 year	...	...	...	...	...	...	1	...	1	...	...	...	17	19	36	2	4	6	...	...	...	...	...	...
1– 4	1	1	2	...	...	...	74	80	154	2	1	3	430	337	767	25	15	40	...	...	...	...	...	...
5–14	7	9	16	...	1	1	98	183	281	1	1	2	575	710	1,285	10	17	27	...	...	...	...	...	...
15–24	15	6	21	1	...	1	25	49	74	...	...	...	118	237	355	1	...	1	...	...	...	1	...	1
25–34	5	2	7	2	....	2	24	34	58	...	1	1	66	132	198	1	3	4	...	...	...	...	1	1
35–44	7	2	9	3	1	4	6	13	19	...	1	1	39	66	105	1	...	1	...	1	1	...	...	...
45–54	3	2	5	2	....	2	1	4	5	...	...	...	13	24	37	...	1	1	...	...	...	...	...	...
55–64	3	...	3	2	...	2	2	3	5	...	...	...	4	9	13	1	1	2	...	...	...	...	...	...
65 and over...	...	...	...	...	...	...	...	...	...	1	...	1	...	3	3	...	...	...	...	...	...	...	1	1
Not stated ...	...	1	1	...	...	...	3	7	10	...	...	...	12	21	38	...	...	...	...	...	...	...	...	...

Age Period.	Infantile Paralysis.						Cerebro-spinal Meningitis.						Pulmonary Tuberculosis.						Puerperal Infection.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total	M.	F.	Total.
All ages	10	6	16	4	2	6	5	5	10	2	1	3	133	101	234	143	131	274	...	38	38	...	28	28
Under 1 year	...	...	...	...	...	...	...	...	...	2	...	2	1	...	1	1	1	2	...	...	...	...	...	...
1– 4	4	3	7	1	1	2	1	2	3	...	1	1	...	...	...	1	...	1	...	...	...	...	...	...
5–14	5	3	8	2	...	2	...	3	3	...	...	...	1	1	2	1	1	2	...	...	...	...	...	...
15–24	1	...	1	1	...	1	1	...	1	...	...	...	15	30	45	10	26	36	...	21	21	...	6	6
25–34	...	...	...	...	...	...	...	...	...	...	...	...	29	28	57	21	32	53	...	10	10	...	12	12
35–44	...	...	...	...	1	1	1	...	1	...	...	...	30	25	55	30	25	55		6	6	...	10	10
45–54	...	...	...	...	...	...	1	...	1	...	...	...	31	6	37	31	18	49	...	...	...	...	...	...
55–64	...	...	...	...	...	...	1	...	1	...	...	...	18	7	25	29	18	47	...	...	...	...	...	...
65 and over...	...	...	...	...	...	...	...	...	...	...	...	...	8	4	12	19	10	29	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...

REMAINDER OF STATE—Year ending 1935.

Age Period.	Typhoid and Paratyphoid.						Scarlet Fever.						Diphtheria.						Encephalitis Lethargic.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M	F.	Total.
All ages	31	20	51	5	4	9	179	288	467	1	3	4	948	1,134	2,082	40	37	77	1	2	3	4	3	7
Under 1 year	0	...	...	...	...	...	4	1	5	...	1	1	17	8	25	2	1	3	...	...	...	...	...	...
1– 4	2	1	3	...	...	...	58	64	122	...	1	1	296	267	563	18	19	37	...	1	1	...	1	1
5–14	12	6	18	2	...	2	90	148	238	...	1	1	469	515	984	17	11	28	...	...	...	1	...	1
15–24	8	7	15	3	2	5	14	34	48	...	...	...	78	144	222	1	1	2	...	...	...	...	...	...
25–34	4	1	5	...	...	...	7	28	35	...	...	...	47	97	144	...	1	1	...	...	...	...	...	...
35–44	2	3	5	...	...	...	5	6	11	...	...	...	23	58	81	2	1	3	1	...	1	1	...	1
45–54	2	1	3	...	...	...	1	4	5	...	...	...	5	18	23	...	1	1	...	1	1	...	1	1
55–64	1	...	1	...	1	1	...	...	...	...	...	...	...	7	7	...	2	2	...	...	1	2	...	2
65 and over	0	1	1	...	1	1	...	1	1	1	...	1	...	3	3	...	...	...	...	...	1	...	1	1
Not stated ...	...	...	...	...	...	...	...	2	2	...	...	...	13	17	30	...	...	...	...	...	1	...	...	...

Age Period.	Infantile Paralysis.						Cerebro-spinal Meningitis.						Pulmonary Tuberculosis.						Puerperal Infection.					
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total	M.	F.	Total.
All ages	60	46	106	10	4	14	8	6	14	...	...	...	158	95	253	158	106	264	...	53	53	...	31	31
Under 1 year	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4	19	15	34	1	...	1	3	...	3	...	...	...	1	...	1	...	2	2	...	...	...	...	...	...
5–14	33	23	56	6	2	8	3	5	8	...	...	...	4	...	4	...	...	...	...	...	...	...	...	...
15–24	7	4	11	1	2	3	2	...	2	...	...	...	19	20	39	11	19	30	...	19	19	...	11	11
25–34	1	3	4	...	...	...	...	1	1	...	...	...	33	34	67	26	31	57	...	23	23	...	10	10
35–44	...	...	...	1	...	1	...	...	...	...	...	...	37	21	58	29	31	60	...	9	9	...	9	9
45–54	...	...	...	...	...	...	...	...	...	...	...	...	32	9	41	30	11	41	...	1	1	...	1	1
55–64	...	...	...	1	...	1	...	...	...	...	...	...	19	2	21	31	7	38	...	...	...	...	...	...
65 and over	...	...	...	...	...	...	...	...	...	...	...	...	13	9	22	31	5	36	...	...	...	...	...	...
Not stated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...

TABLE V.—(*a*) Showing the seasonal prevalence of Cerebro-spinal Fever (Meningococcal Meningitis), Diphteria and Membranous Croup, Infantile Paralysis (Acute Anterior Poliomyelitis), Encephalitis Lethargica, Scarlet Fever, Typhoid Fever (including Paratyphoid), Pulmonary Tuberculosis, and Puerperal Infection in New South Wales for the *year ended December 31st*, 1934.

Month.	Typhoid Fever and Paratyphoid.										Scarlet Fever.									
	Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.		Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1934.																				
January	5	...	4	1	2	...	11	4	22	5	149	3	59	...	1	...	43	...	252	3
February	3	...	5	...	...	...	11	...	19	...	131	...	22	1	...	...	77	2	230	3
March	13	1	2	1	2	...	10	2	27	4	131	...	17	...	1	...	46	...	195	...
April	4	1	2	...	2	...	3	...	11	1	120	1	20	...	...	...	84	1	224	2
May	3	...	1	...	1	...	5	1	10	1	111	...	9	...	...	...	76	2	196	2
June	6	...	...	...	...	...	2	...	8	...	81	...	5	...	4	...	58	...	148	...
July	4	...	...	1	...	...	4	1	8	2	103	...	10	1	7	...	64	1	184	2
August	2	...	1	...	1	...	2	...	6	...	119	...	6	2	5	...	54	2	184	4
September	1	1	...	...	1	...	1	...	3	1	77	1	8	...	6	...	21	...	112	1
October	3	...	...	...	...	...	4	1	7	1	123	1	18	...	11	...	26	...	178	1
November	3	...	...	...	...	...	4	2	7	2	86	1	22	...	1	...	22	...	131	1
December	2	...	3	1	1	...	7	1	13	2	83	...	13	...	...	...	36	...	132	...
Total	49	3	18	4	10	...	64	12	141	19	1,314	7	209	4	36	...	607	8	2,166	19

	Diphtheria.										Encephalitis Lethargica.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1934.																				
January	211	11	59	2	1	...	311	5	582	18	...	...	...	...	...	...	...	...	...	...
February	213	4	54	...	3	...	264	4	534	8	...	1	...	...	...	...	...	...	...	1
March	272	8	103	3	7	...	381	13	763	24	2	...	...	...	...	...	...	...	2	...
April	301	13	115	4	9	...	469	14	894	31	...	...	...	1	...	...	...	...	...	1
May	361	14	77	3	2	...	410	14	850	31	1	2	...	...	...	...	...	...	1	2
June	288	11	22	...	4	...	256	11	570	22	...	...	...	...	...	...	...	...	...	...
July	278	3	23	1	10	...	222	7	533	11	...	...	...	...	...	...	...	...	...	...
August	210	5	31	2	3	...	146	5	390	12	...	1	1	1	...	...	1	2	2	4
September	149	7	15	...	1	...	108	...	273	7	1	1	...	...	...	...	...	...	1	1
October	166	6	11	1	...	...	94	4	271	11	...	2	...	1	...	...	...	1	...	4
November	162	5	12	1	...	...	68	1	242	7	...	1	...	...	...	...	...	...	...	1
December	135	6	25	1	2	...	103	4	265	11	...	1	...	...	...	...	...	...	...	1
Total	2,746	93	547	18	42	...	2,832	82	6,167	193	4	9	1	3	...	...	1	3	6	15

	Infantile Paralysis.										Cerebro-spinal Meningitis.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.æ	C.	D.	C.	D.	C.	D	C.	D.
1934.																				
January	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2
February	1	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	1	...	3	...
March	2	...	...	...	...	...	1	...	3	...	2	...	...	...	...	...	...	...	2	...
April	...	...	1	...	...	...	3	...	4	...	1	...	...	1	...	...	1	...	2	1
May	1	...	...	...	...	...	3	1	4	1	1	1	...	...	...	...	...	...	1	1
June	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2	...
July	2	...	...	...	...	...	1	1	3	1	...	...	...	...	...	...	1	...	1	...
August	1	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
September	1	...	...	...	...	...	1	2	2	2	3	...	1	...	...	...	1	1	5	1
October	12	...	...	...	...	...	...	...	12	...	...	...	3	...	...	...	...	...	3	...
November	29	5	...	...	...	...	1	...	35	5	2	...	1	...	...	...	3	1	6	1
December	28	...	...	...	...	1	6	2	34	3	2	1	...	...	...	...	2	...	4	1
Total	77	6	1	...	...	1	16	6	94	13	14	3	5	1	...	...	10	3	29	7

	Pulmonary Tuberculosis.										Puerperal Infection.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1934.																				
January	84	45	2	7	3	2	29	24	118	78	17	3	...	2	...	...	5	2	22	7
February	111	42	8	9	5	3	20	17	144	71	16	2	2	...	...	...	2	2	20	4
March	120	49	7	8	2	1	20	23	149	81	31	4	...	...	...	...	2	2	32	6
April	95	61	10	4	...	1	11	20	116	86	21	1	1	...	...	...	7	2	29	3
May	94	54	3	3	...	4	22	28	119	89	17	2	2	...	...	...	1	...	20	2
June	101	48	5	6	...	1	26	24	132	79	14	1	2	...	...	...	3	3	19	4
July	101	48	5	5	...	1	19	22	125	76	10	2	3	...	...	...	6	3	19	5
August	78	65	4	10	1	3	12	25	95	103	13	1	...	1	...	...	3	4	16	6
September	115	57	7	8	1	3	23	30	146	98	19	6	...	2	...	...	2	4	21	12
October	83	40	5	2	...	2	16	25	104	69	13	3	...	...	...	...	3	2	16	5
November	125	43	11	2	...	1	18	16	154	62	9	2	...	1	...	...	4	2	13	5
December	84	39	4	4	1	...	18	20	107	63	7	1	3	1	...	...	1	2	11	4
Total	1,191	591	71	68	13	22	234	274	1,509	955	187	28	13	7	...	...	38	28	238	63

TABLE V. (*b*) Showing the seasonal prevalence of Cerebro-Spinal Fever (Meningococcal Meningitis), Diphteria and Membranous Croup, Infantile Paralysis (Acute Anterior Poliomyelitis), Encephalitis Lethargica, Scarlet Fever, Typhoid Fever (including Loratyphoid), Pulmonary Tuberculosis, and Puerperal Infection in New South Wales for the *year ended December* 31*st*, 1935.

Month.	Typhoid and Paratyphoid.										Scarlet Fever.									
	Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.		Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1935.																				
January	13	...	...	1	2	...	3	...	18	1	58	1	15	...	2	...	30	...	105	1
February	23	1	8	1	2	...	7	2	40	4	69	...	13	...	3	...	38	1	123	1
March	22	1	1	...	3	...	13	3	39	4	87	...	10	...	...	...	42	1	139	1
April	9	2	3	...	1	...	5	1	18	3	83	...	5	...	1	...	51	...	140	...
May	3	...	...	...	1	...	3	3	7	3	106	...	14	...	4	...	40	1	164	1
June	4	1	...	...	...	...	1	...	5	1	81	1	14	...	...	...	31	...	126	1
July	2	...	...	...	...	...	2	...	4	...	107	2	8	...	1	...	44	...	160	2
August	1	2	...	...	...	...	1	...	2	2	158	3	16	1	1	...	30	...	205	4
September	8	...	...	...	...	...	3	...	11	...	174	4	11	...	1	...	20	1	206	5
October	5	...	2	...	...	...	5	...	12	...	237	1	13	...	...	...	42	...	292	1
November	2	1	2	...	2	...	3	...	9	1	240	...	13	...	2	...	38	...	293	...
December	3	1	...	...	...	...	5	...	8	1	218	1	16	...	2	...	61	...	297	1
Total	95	9	16	2	11	...	51	9	173	20	1,618	13	148	1	17	...	467	4	2,250	18

	Diphtheria.										Encephalitis Lethargica.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1935.																				
January	142	3	519	...	1	...	118	2	280	5	...	1	...	...	...	...	...	...	...	1
February	185	4	27	...	3	...	185	9	400	13	...	...	...	...	...	...	...	...	...	...
March	181	6	41	1	...	...	224	5	446	12	...	1	...	...	...	...	...	...	...	1
April	351	15	21	...	...	...	323	14	695	29	...	...	...	...	...	...	...	...	...	...
May	254	20	28	1	...	...	221	6	503	27	...	...	...	...	...	...	...	...	...	...
June	234	6	34	...	...	...	163	6	431	12	...	...	1	...	...	...	...	...	1	...
July	238	20	18	1	1	...	136	6	393	27	1	2	...	...	...	...	...	1	1	3
August	145	8	17	1	1	...	93	7	256	16	...	1	...	...	...	...	1	1	1	2
September	188	6	12	1	...	...	108	6	308	13	...	1	...	...	...	...	...	2	...	3
October	222	9	48	...	3	...	128	8	401	17	1	...	...	...	...	...	...	2	1	2
November	179	6	24	...	...	...	135	1	338	7	...	1	...	...	...	...	1	1	1	2
December	148	7	66	2	...	...	248	7	462	16	...	...	1	2	...	...	1	...	2	2
Total	2,467	110	355	7	9	...	2,082	77	4,913	194	2	7	2	2	...	...	3	7	7	16

	Infantile Paralysis.										Cerebro-spinal Meningitis.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1935.																				
January	20	...	9	...	...	...	15	2	44	2	2	...	...	...	...	...	...	...	2	...
February	14	1	1	1	...	...	30	3	45	5	1	...	...	...	...	...	2	...	3	..
March	11	...	5	...	...	...	24	1	40	1	2	...	...	...	...	...	3	...	5	...
April	4	...	6	1	...	...	17	2	27	3	1	...	...	...	...	...	...	...	1	...
May	...	1	...	1	...	...	11	1	11	3	1	2	...	...	...	...	4	...	5	2
June	1	...	...	...	...	...	...	2	1	2	...	...	...	...	...	...	1	...	1	...
July	3	1	...	...	...	...	5	...	8	1	3	1	...	...	...	...	...	...	3	1
August	...	...	...	...	...	...	2	1	2	1	3	1	...	...	...	...	...	...	3	1
September	...	...	...	...	...	...	2	...	2	...	1	1	...	...	...	...	2	...	3	1
October	1	...	...	...	...	...	...	1	1	1	1	...	...	...	...	...	1	...	2	...
November	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	1	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	54	3	21	3	...	...	106	14	181	20	15	5	...	...	...	...	14	...	29	5

	Pulmonary Tuberculosis.										Puerperal Infection.									
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1935.																				
January	73	49	8	7	...	1	11	22	92	79	16	3	...	...	...	...	4	3	20	6
February	115	33	10	5	...	1	26	19	151	58	15	1	2	1	...	...	3	1	20	3
March	94	50	12	3	...	1	22	20	128	74	14	2	...	...	...	...	3	2	17	4
April	143	43	9	8	7	2	40	15	199	68	13	4	1	1	...	...	5	2	19	7
May	124	66	6	3	4	1	21	30	155	100	19	3	...	1	...	...	5	5	24	9
June	96	50	9	4	...	...	25	12	130	66	10	2	...	...	...	...	6	3	16	5
July	71	74	6	7	...	...	11	31	88	112	14	3	2	...	...	...	6	2	22	5
August	107	53	8	5	...	...	21	41	136	99	7	5	1	1	...	...	8	4	16	10
September	91	48	9	5	...	1	15	12	115	66	36	1	4	1	...	...	1	2	41	4
October	71	45	2	3	3	1	11	29	87	78	26	5	4	...	...	...	4	3	34	8
November	141	44	14	6	2	...	25	16	182	66	10	2	1	2	...	...	6	3	17	7
December	74	52	9	4	1	...	25	17	109	73	17	1	1	2	...	...	2	1	20	4
Total	1,200	607	102	60	17	8	253	264	1,572	939	197	32	16	9	...	...	53	31	266	72

Table VI.—Showing the number of Cases of Infectious Diseases notified in the State of New South Wales during the years 1898 to 1935, inclusive, and the number of deaths therefrom.

Year.	Population.	Typhoid Fever.*		Scarlet Fever.*		Diphtheria.*		Plague.†		Infantile Paralysis.‡		Cerebro-spinal Meningitis.§		Encephalitis Lethargica.		Pulmonary Tuberculosis.¶		Puerperal Infection.**	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Death
1898	1,323,130	3,302	387	6,342	83	1,493	169	...	...	...	...	...	...	...	...	...	...	...	...
1899	1,344,080	2,783	347	1,389	25	741	60	...	...	...	...	...	...	...	...	...	...	...	...
1900	1,364,590	3,442	398	895	9	726	63	303	103	...	...	...	...	...	...	...	...	...	...
1901	1,376,199	2,702	291	1,288	16	922	131	...	...	...	...	...	...	...	...	...	...	...	...
1902	1,397,858	2,624	276	2,010	61	757	74	140	41	...	...	...	...	...	...	...	...	...	...
1903	1,416,879	4,855	475	5,358	87	1,214	134	2	...	...	...	...	...	...	...	...	...	...	...
1904	1,440,919	2,370	249	4,056	50	1,584	156	12	6	...	...	...	...	...	...	146	...	...	...
1905	1,469,153	2,226	239	1,773	21	1,118	102	56	21	...	...	...	...	...	...	128	...	...	...
1906	1,498,609	2,373	271	3,085	42	1,219	100	20	8	...	...	...	...	...	...	118	...	...	...
1907	1,531,980	1,972	189	2,570	26	1,376	133	51	20	...	...	...	...	...	...	161	...	...	...
1908	1,560,026	2,607	307	2,755	40	2,001	123	6	3	...	...	...	...	...	...	112	...	...	...
1909	1,596,685	2,615	287	7,178	30	2,419	166	24	7	...	...	...	...	...	...	196	...	...	...
1910	1,638,220	2,714	294	1,642	23	4,989	207	...	...	...	...	...	...	...	...	184	...	...	...
1911	1,698,735	1,864	184	2,618	11	4,784	226	...	...	...	...	...	...	...	...	222	...	...	...
1912	1,778,962	2,126	236	662	11	5,440	253	...	...	...	...	...	...	...	...	265	...	...	...
1913	1,832,546	2,187	236	1,120	23	6,380	310	...	...	47	10	...	...	...	...	228	...	...	...
1914	1,862,028	2,284	250	3,207	21	5,831	247	...	...	79	14	...	...	...	...	293	...	...	...
1915	1,868,644	1,941	219	8,335	97	5,838	264	...	...	63	11	50	33	...	...	361	86	...	...
1916	1,846,736	1,742	209	5,759	107	6,588	309	...	...	311	21	309	145	...	...	1,499	666	...	...
1917	1,886,701	1,091	103	2,255	27	5,805	247	...	...	16	12	197	98	...	...	1,319	584	...	...
1918	1,928,174	810	112	1,308	15	5,151	221	...	...	50	12	120	80	...	...	1,308	586	...	...
1919	2,000,173	857	106	959	10	2,826	114	...	...	8	3	28	23	...	...	1,102	678	...	...
1920	2,099,763	1,016	132	937	24	5,043	263	...	...	45	10	34	27	...	...	1,509	674	...	...
1921	2,128,786	949	129	1,060	8	6,854	306	2	1	184	22	30	28	...	...	1,240	791	...	...
1922	2,174,688	706	99	1,153	11	4,094	207	33	9	33	5	21	22	...	...	1,045	517	...	...
1923	2,211,106	873	104	2,623	13	3,480	176	1	1	104	8	27	22	...	...	1,218	657	...	...
1924	2,256,649	768	97	3,421	29	4,364	222	...	...	108	6	29	38	...	...	1,096	730	...	...
1925	2,300,081	533	80	3,043	27	3,004	118	...	...	57	14	37	27	...	...	1,195	617	...	...
1926	2,349,401	698	80	4,755	53	3,579	147	...	...	81	21	32	23	...	...	1,265	705	...	...
1927	2,401,884	460	68	8,369	113	4,059	179	...	...	25	4	25	10	3	27	1,158	632	...	...
1928	2,446,874	453	60	5,531	105	3,835	168	...	...	30	2	31	8	18	23	1,212	815	...	...
1929	2,479,147	438	45	5,219	78	4,274	215	...	...	241	29	28	10	26	30	1,215	1,152	44	79
1930	2,502,039	380	48	4,400	54	4,051	176	...	...	30	6	43	12	14	20	1,917	1,022	269	82
1931	2,519,300	340	35	4,477	36	4,432	168	...	...	103	10	30	9	20	16	1,588	1,014	319	83
1932	2,542,034	233	31	4,905	57	4,310	160	...	...	384	44	43	7	12	18	1,485	969	292	59
1933	2,613,776	188	28	4,259	55	3,912	169	...	...	13	4	24	5	11	15	1,441	951	222	100
1934	2,623,817	141	19	2,166	19	6,167	193	...	...	94	13	29	7	6	15	1,509	955	238	63
1935	2,645,575	173	20	2,250	18	4,913	194	...	...	181	20	29	5	7	16	1,571	939	266	72

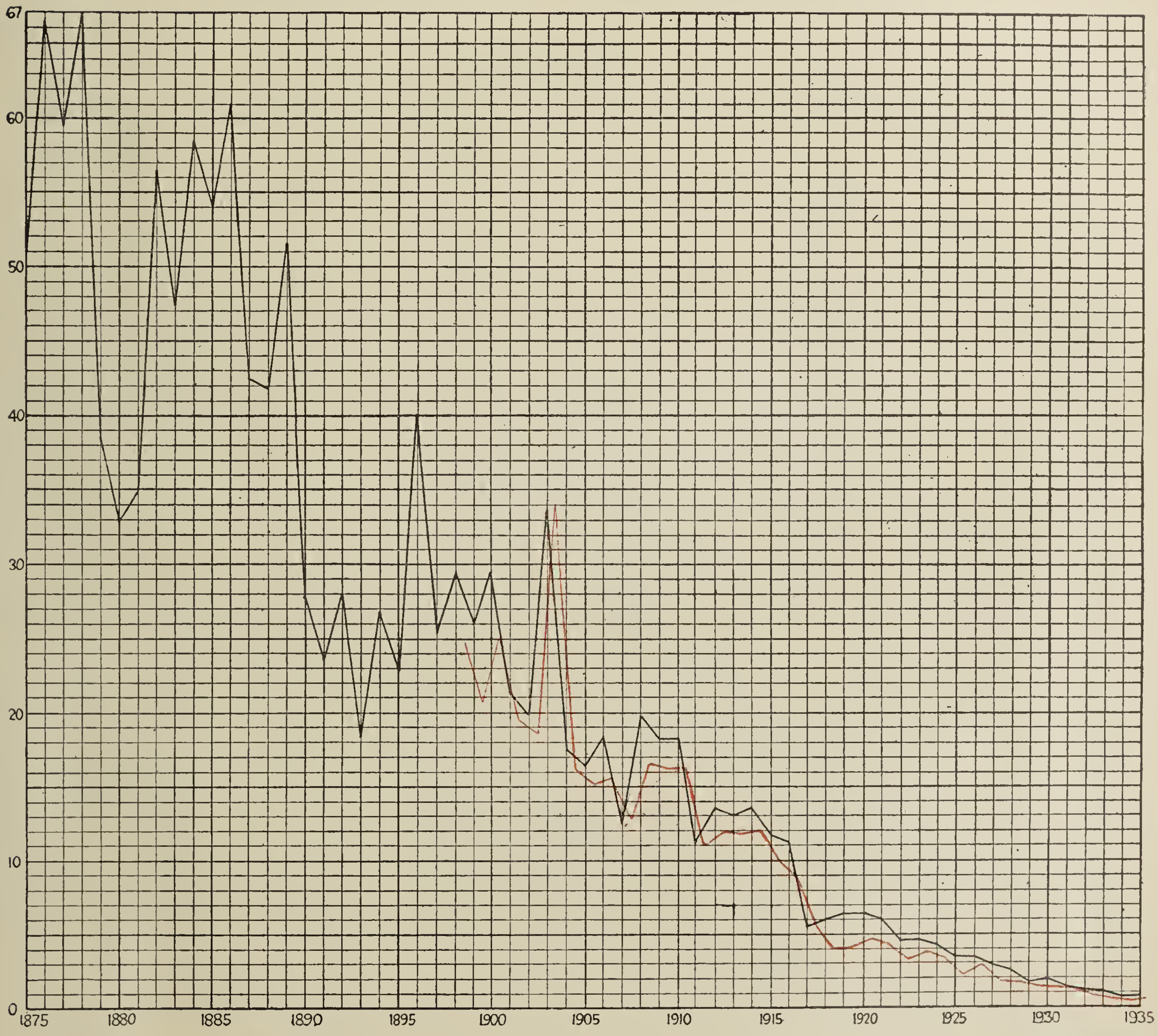
* Notifiable from 1st January, 1898;
† „ 23rd January, 1900.
‡ „ 1st February, 1912. Proclamation re-issued 14th August, 1931.
§ „ 1st April, 1926;
„ 11th October, 1915.
¶ „ 1904, city of Sydney only; from 1915, Metropolitan and Hunter River Districts; from 1916, Blue Mountain Districts. Notification extended to whole State, March, 1929.
** „ 16th August, 1929.

GRAPHS.

Typhoid Fever Diphtheria ... Scarlet Fever	Annual Death-rate per 100,000 (1875-1935) and case rate per 10,000 of population (1898-1935).
Infantile Paralysis ...	Seasonal incidence of Epidemics of years 1915-16; 1920-21; 1925-26; 1928-29; 1931-32; 1934-35.
Whooping Cough Measles ... Pneumonia Influenza ...	Annual Death-rate per 100,000 of population in New South Wales, 1875-1935.

TYPHOID FEVER.

Annual Death Rate, New South Wales per 100,000 of the Population, 1875-1935.
,, Case ,, ,, ,, ,, ,, 10,000 ,, ,, 1898-1935.
Death Rate—BLACK Line. Case Rate—RED Line.

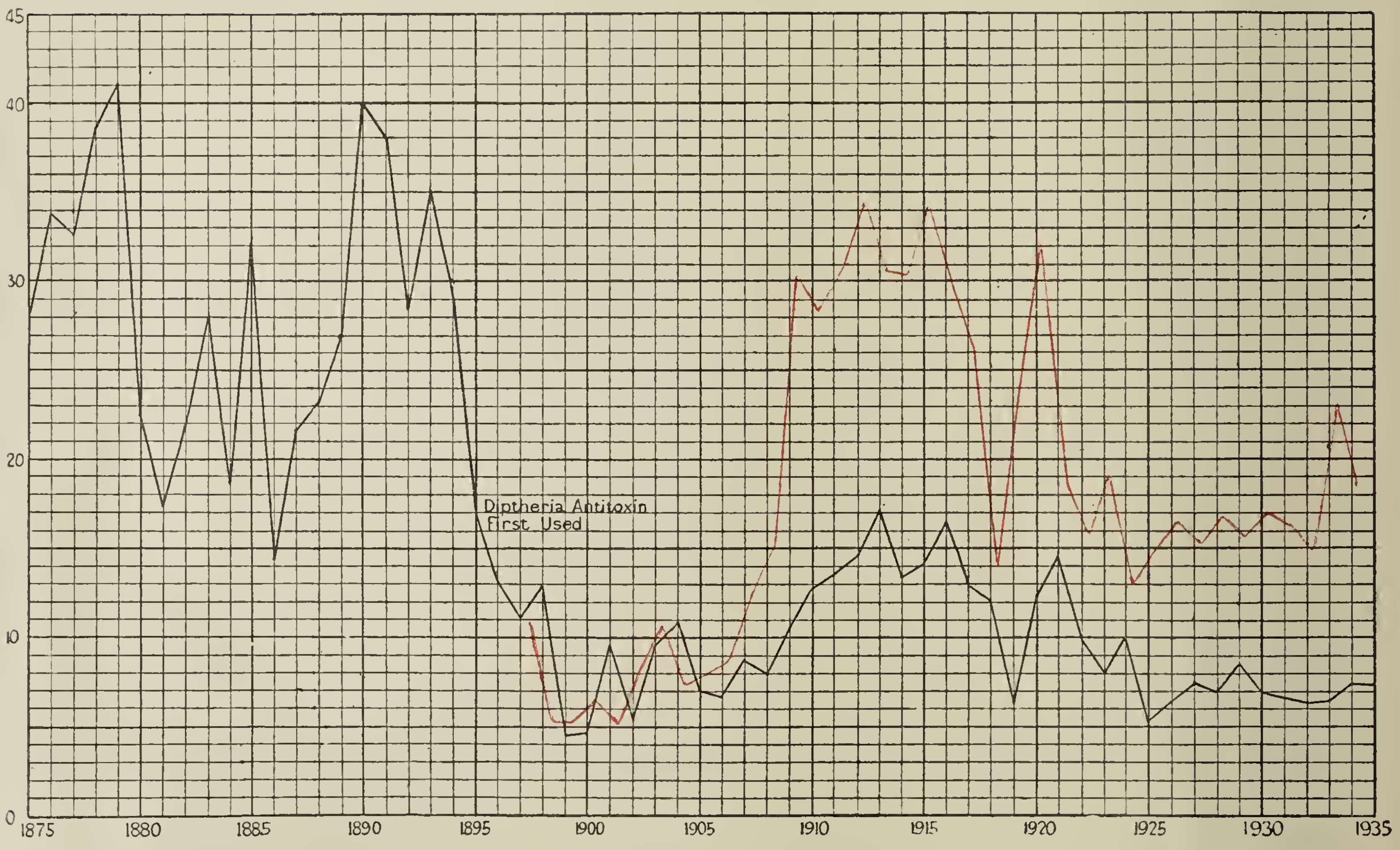


To be inserted between pages 64 and 65.

* 14531—2

DIPHTHERIA.

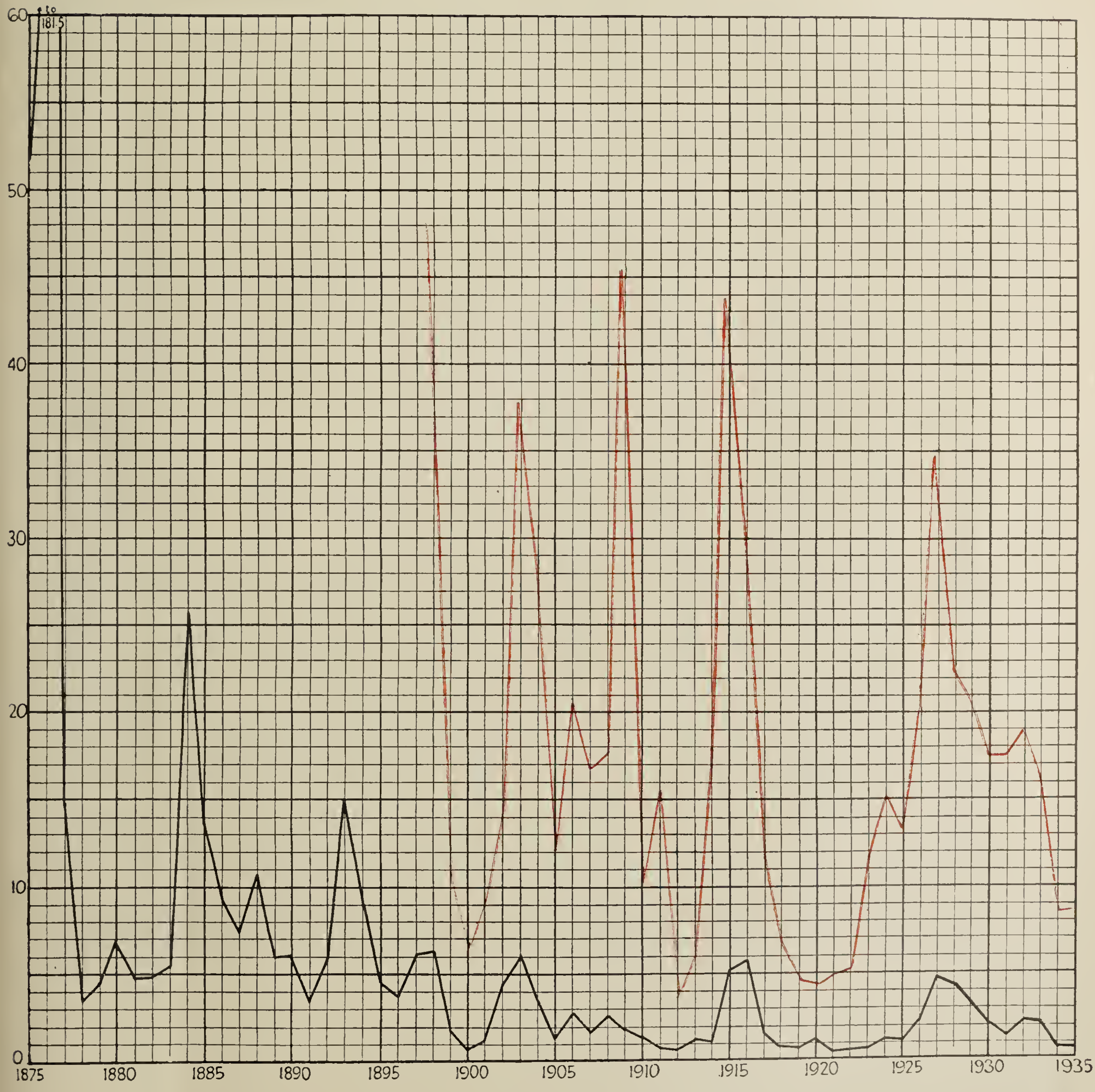
Annual Death Rate, New South Wales, per 100,000 of the Population, 1875-1935.
,, Case ,, ,, ,, ,, ,, 10,000 ,, ,, 1898-1935.
Death Rate—BLACK Line. Case Rate—RED Line.



SCARLET FEVER.

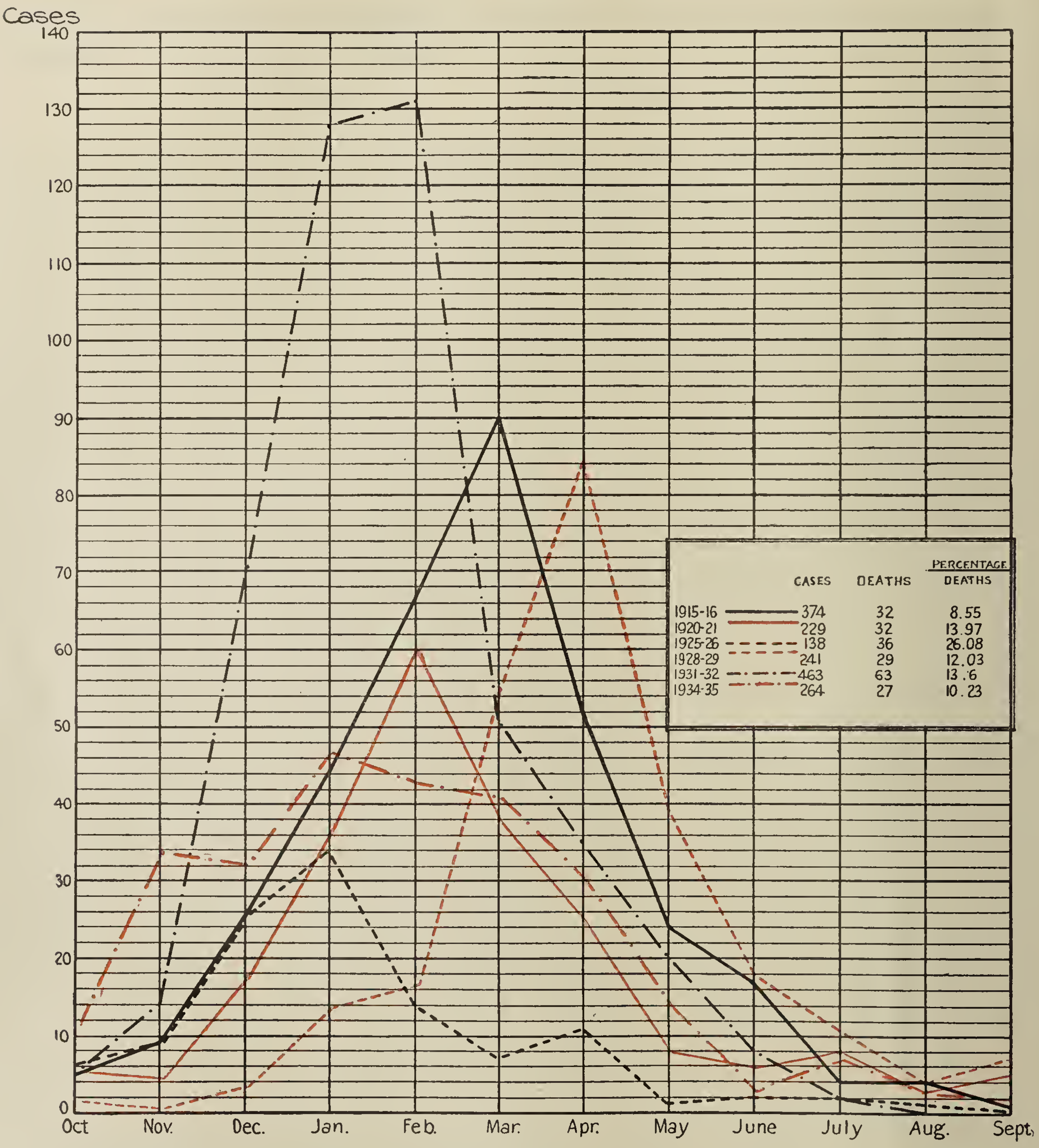
Annual Death Rate, New South Wales, per 100,000 of the Population, 1875-1935.
,, Case ,, ,, ,, ,, ,, 10,000 ,, ,, 1898-1935.

Death Rate—BLACK Line. Case Rate—RED Line.



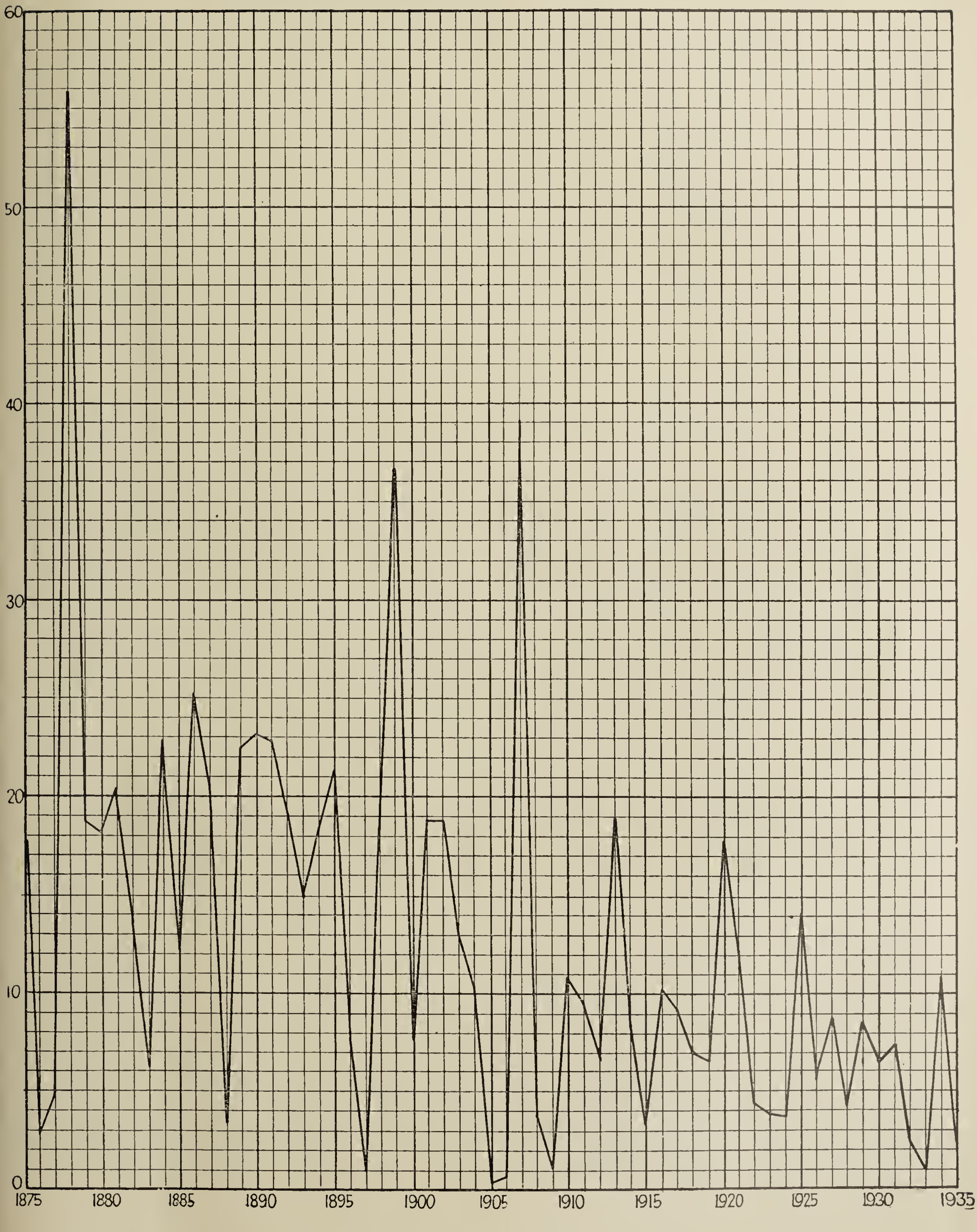
INFANTILE PARALYSIS, NEW SOUTH WALES.

Graph Illustrating Epidemics during the Years 1914-15, 1920-21, 1924-25, 1928-29, 1931-32, 1934-35.



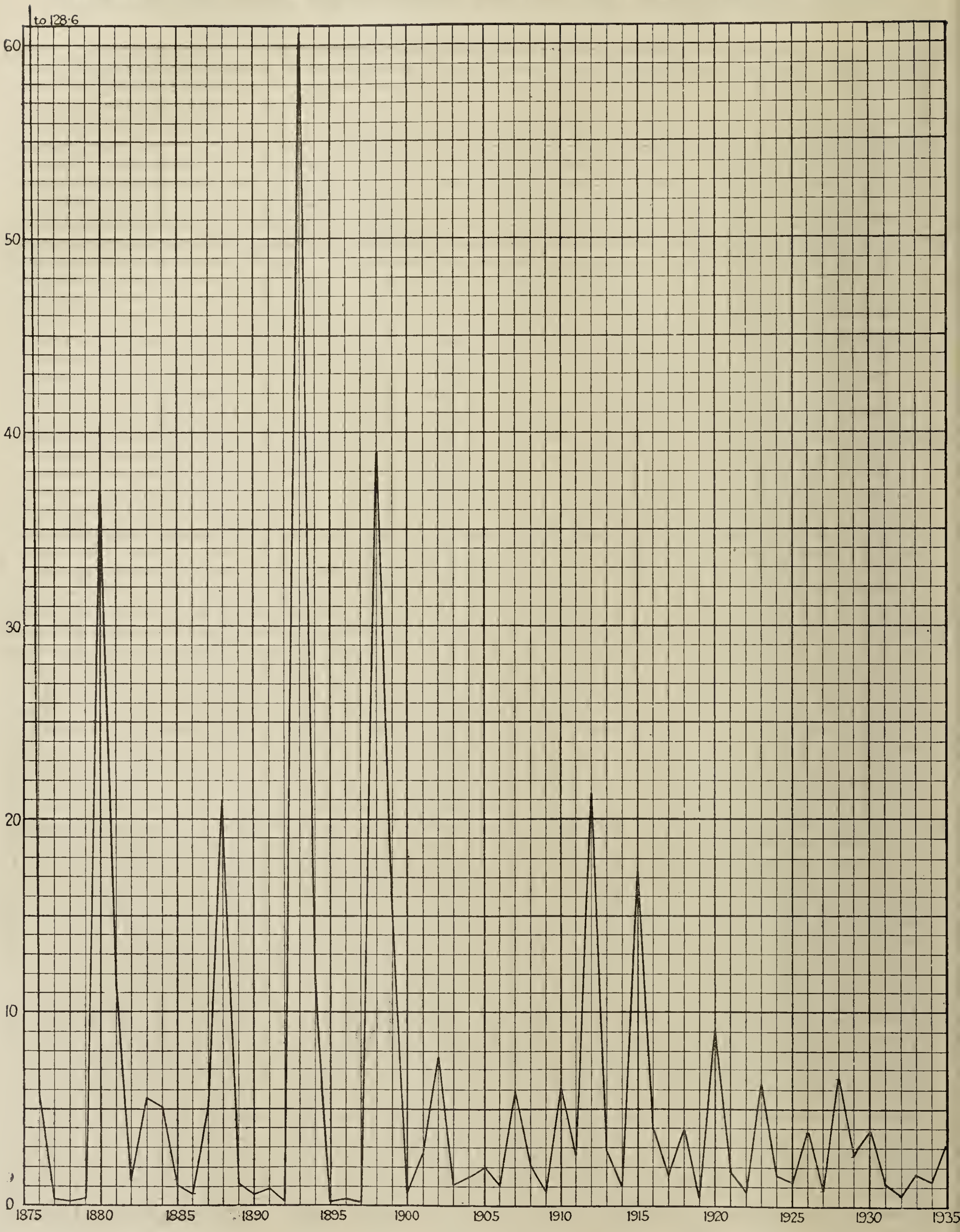
WHOOPING COUGH.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935.



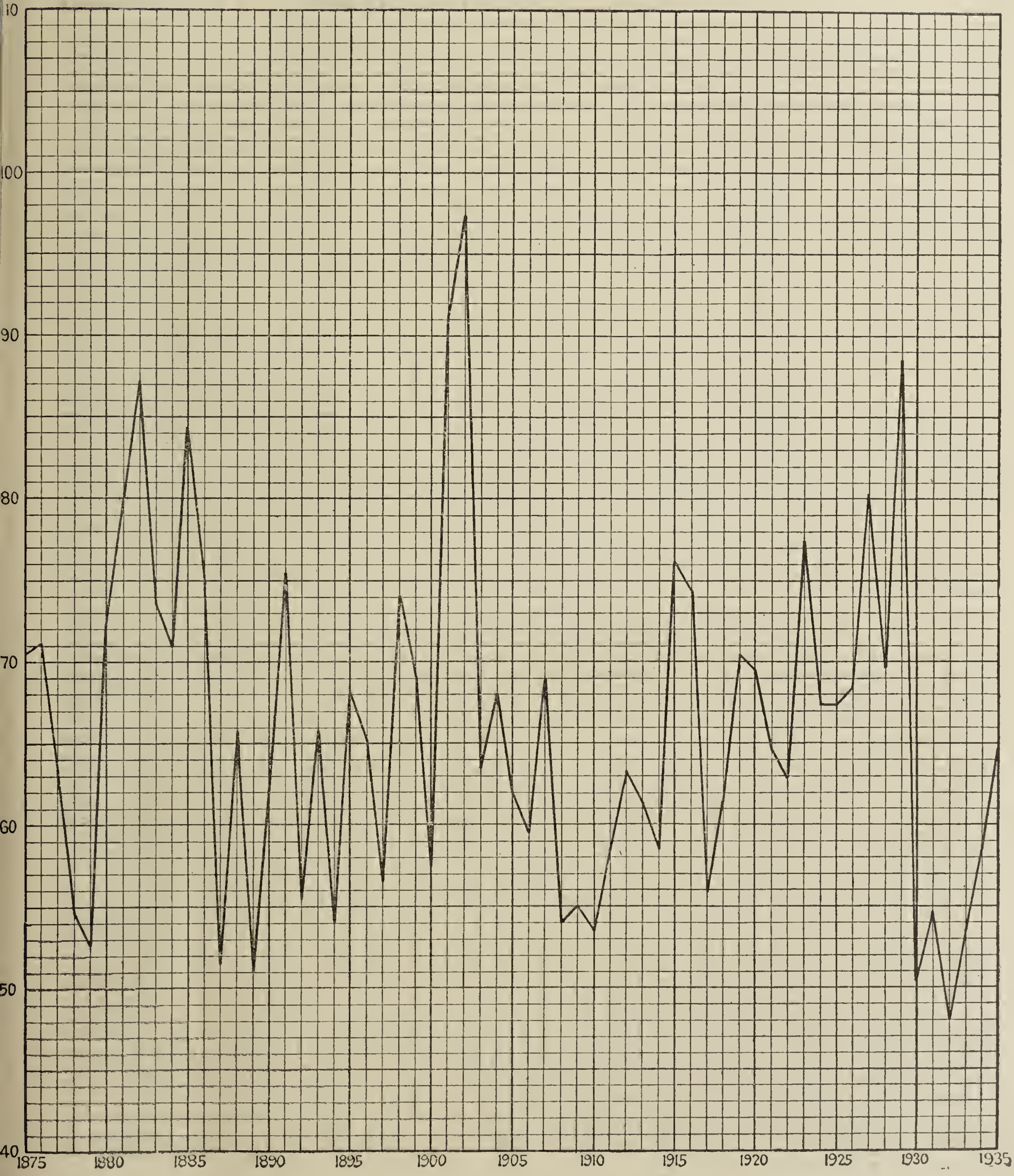
MEASLES.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935.



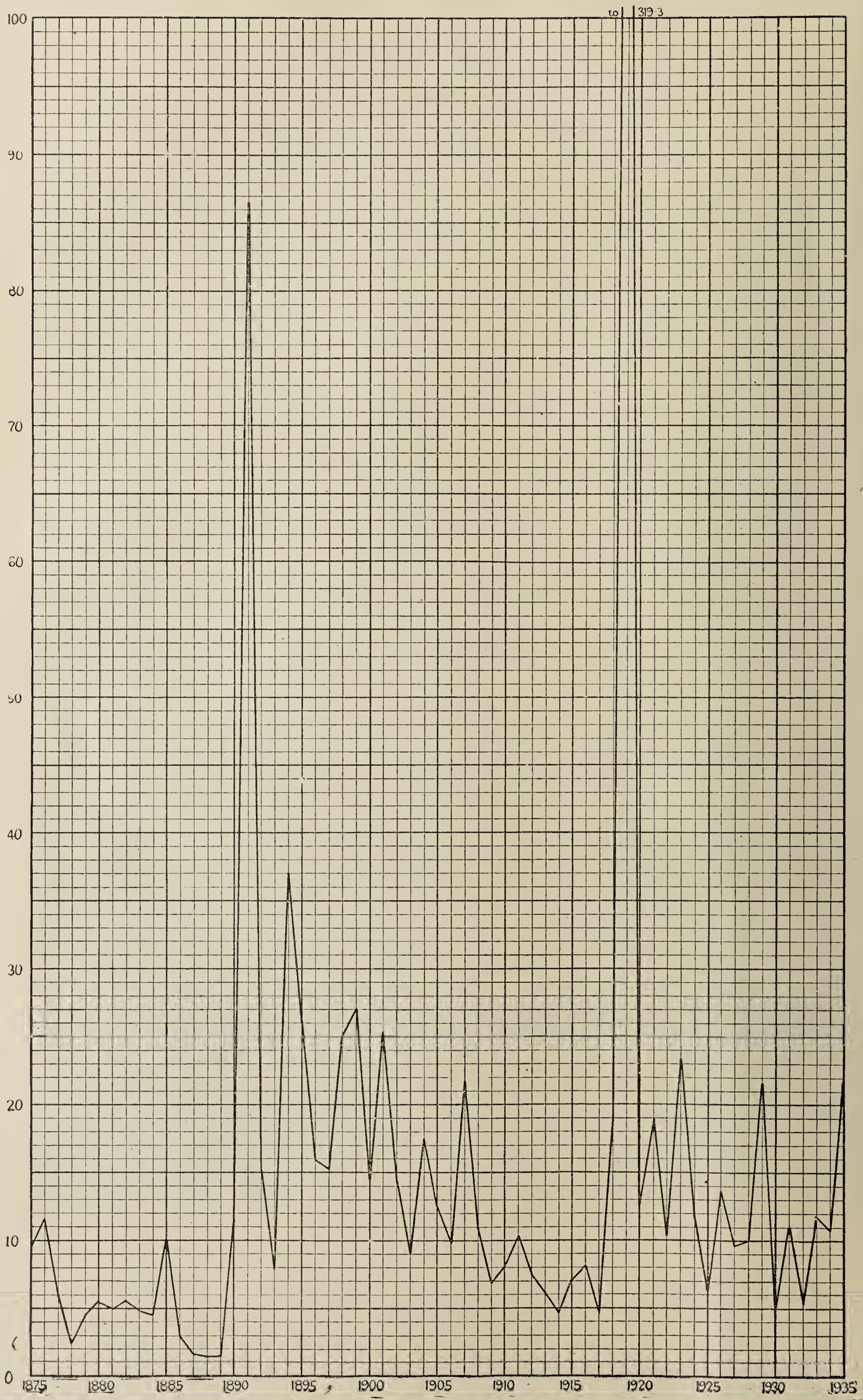
PNEUMONIA,

Annual Death Rate per 100,000 of Population in New South Wales, 1875-1935.



INFLUENZA.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935.



DIVISION OF VENEREAL DISEASES.

Report of the Director, Division of Venereal Diseases (J. Cooper Booth, M.B., Ch.B.) to the Commissioner under the Venereal Diseases Act, 1918 (E. Sydney Morris, M.D., Ch.M., D.P.H., Director-General of Public Health) for the year ending 31st December, 1935.

Staff.

Director: J. Cooper Booth, M.B., Ch.B. *Medical Officers:* J. H. Abbott, M.B., Ch.M.; H. V. Hanson, M.B., Ch.M.; H. W. S. Hambrett, M.B., B.S. *Clerical:* L. Maher and two assistants. *Clinic Assistant:* R. C. Lewry and four attendants.

The notifications received during 1935 totalled 4,829, an increase of 108 over the total for the year 1934. As has been mentioned in previous reports the total recorded year by year cannot be regarded as representative of the amount of venereal disease in this State. The notifications for 1935 represent about ·2 per centum of the population, which figure is obviously too low when compared with the survey figures of other countries. We have practically no idea of the yearly number of late syphilitic manifestations discovered as very few of these are reported. These conditions are of particular interest as they demonstrate the end results of infection, and one may learn much from them as they are frequently an index of the failure to give, or of the patient's failure to see that he receives adequate treatment.

The treatment of syphilis is still a matter of many months or years of treatment, followed by years of supervision. There is no easy road to safety after infection. The treatment is tedious, and the majority of patients weary long before apparent cure is effected. The person who reports immediately infection is suspected and begins efficient treatment as soon as the disease is diagnosed, in its early stage, has the most guarded future, provided he continues under treatment. For such a person cure is practically certain.

Too little attention is paid to prophylaxis. We try to train our patients at the Divisional clinic to report for preventive treatment as soon as possible after exposure, and we have some men who report regularly with satisfactory results. Many former patients, however, are too lazy to seek such protection and, as a result, we have a number who return with fresh infections. In 1935 they amounted to 190, of which number 7 were syphilitic and two of the seven had gonorrhoea as well. The balance of the " returns " were infected with gonorrhoea with the exception of four with venereal warts. These former patients with reinfections present an increasing problem at our divisional male clinic. Within a short time we will be averaging one " return " daily with a proved fresh infection. In 1935 28·4 per centum of former patients who re-attended for examination were found to have become re-infected.

It is difficult to know what to advise, but it is fundamentally wrong to continue to treat a person repeatedly free of charge for an infection contracted by a free act of his own and under circumstances where ignorance of the risk run cannot be pleaded on account of inexperience. On the other hand, if re-infections are penalised by fees for treatment it will only tend to encourage self treatment and the supply of drugs by unscrupulous chemists or other persons who are unqualified to treat venereal diseases.

Increased provision of facilities for prophylaxis and adequate publicity concerning its advantages might help, but my experience is that as a rule the young man who is lavishly spending his sexual energy ex-nuptially is too lazy to protect himself unless he can see that he has taken a definite risk. What he does not see he usually does not worry about.

The work at the divisional clinic has increased during 1935 by 18,088 attendances (20·8 per centum) and 614 patients (22·1 per centum). There will be a further increase in 1936.

It is obvious to those who work in the Division that within the next three years the clinic will be inadequately housed. When the treatment section was opened it was regarded somewhat in the nature of an experiment. Unquestionably the venture has succeeded in establishing itself as one of the most efficient clinics in Australia, and it is becoming favourably known overseas among seamen. Unless we are able to keep step with the demands made on the clinic our standard of service and efficiency must be lowered.

It is desirable that we should be given an opportunity to expand in a reasonable manner according to the necessities of the present and future.

A laboratory with a Bacteriologist within the Division of Venereal Diseases is desirable, so that there may be closer contact between patients and the laboratory. The clinic is now large enough to warrant the establishment of such a unit. The serology could still be carried out in the Microbiological Laboratory, but we would, with the addition of the proposed unit, be able to relieve that Laboratory of all smears and cultures for gonococci. 13,823 smears were examined by the Laboratory in 1935, giving a daily average of 53. The additional smears we desire, and the cultures we consider necessary, would fully employ a Bacteriologist.

INVESTIGATIONAL WORK ON GONORRHOEA.

Appendix I deals with intensive vaccine therapy in acute gonorrhoea in the male, and records the investigations carried out by Dr. J. H. Abbott in the clinic of the Division.

Gonococcus filtrate (supplied by Parke, Davis & Co.) is under trial on a few cases, but it is too early to express an opinion at present on the effect of such treatment as regards time saved and complications prevented or more rapidly allevaited.

VENEREAL DISEASES ACT, 1918.

REPORT ON NOTIFICATIONS RECEIVED FOR YEAR ENDED 31ST DECEMBER, 1935.

Four thousand eight hundred and twenty-nine notifications of venereal disease were received during 1935, an increase of 108 compared with 1934. Of the notifications, 30·09 per centum came from private medical practitioners, as compared with 41·07 per centum in 1934 and 30·19 per centum in 1933.

Syphilis.—Of the 4,829 total notifications received during 1935, 1,143 were for cases of syphilis (males 737, and females 406) a figure 23 above that for 1934. The sex ratio of notified cases of syphilis for 1935 was 1·82 males to 1 female. Of the cases of syphilis notified in 1935, 11·37 per centum were being treated privately, as compared with 14·55 per centum in 1934 and 15·6 per centum in 1933. Of the total notifications of venereal disease in 1935, syphilis contributed 23·67 per centum, compared with 23·72 per centum in 1934 and 27·01 per centum in 1933.

The notifications of syphilis gave a rate of 43·2 per 100,000 of population for 1935, compared with 42·69 per 100,000 in 1934 and 49·9 per 100,000 in 1933.

Gonorrhoea.—Of the 4,829 total notifications received during 1935, 3,229 were cases of gonorrhoea (males 2,726, and females 503), a figure 35 in excess of that for 1934. The sex ratio of notified cases of gonorrhoea was 5·42 males to 1 female. Of the cases of gonorrhoea notified in 1935, 28·96 per centum were being treated privately, as compared with 43·25 per centum in 1934 and 30·28 per centum in 1933. The percentage of cases of gonorrhoea notified in the total notifications of venereal disease was 66·87 per centum, compared with 66·70 per centum in 1934 and 66·48 per centum in 1933. The notifications of gonorrhoea gave a rate of 122·1 per 100,000 of population for 1935, compared with 120·02 per 100,000 of population in 1934 and 122·9 per 100,000 in 1933.

Other Forms of Venereal Disease.

Soft Chancre (*Chancroid*).—Five cases (all males) were notified, being ·10 per centum of the total notifications for 1935, compared with ·15 per centum in 1934 and ·08 in 1933.

Gonococcal Ophthalmia.—Twenty cases (13 males and 7 females) were notified, being ·41 per centum of the total notifications for 1935, compared with ·02 per centum in 1934 and ·21 per centum in 1933.

Venereal Warts.—Thirty cases (29 males and 1 female) were notified, being ·62 per centum of the total notifications for 1935, compared with ·19 per centum in 1934 and ·17 per centum in 1933.

Gleet.—Three hundred and ninety-nine cases (394 males and 5 females) were notified, being 8·26 per centum of the total notifications for 1935, compared with 9·17 per centum in 1934 and 6·05 per centum in 1933.

Venereal Granuloma.—Three cases (1 male and 2 females) were notified, representing ·06 per centum of the total notifications for 1935.

There has been a marked increase in the notifications of gonococcal opthalmia due to an outbreak among children of various ages on one of the Aboriginal Stations under the control of the Aborigines Protection Board. Prompt action was taken as soon as the condition was diagnosed, and the outbreak was brought under control.

VENEREAL DISEASES NOTIFICATIONS, 1929 TO 1935 (INCLUSIVE).

Year.	Total. Notifications.	Percentage Grouping in Notifications for Year.			Mean Population.	Rate per 10,000 of Mean Population.		
		Syphilis.	Gonorrhoea.	Other V.D.		Syphilis.	Gonorrhoea.	Other V.D.
1929	5‘226	19·04	76·14	4·82	2,464,510	4·04	16·14	1·02
1930	5,225	27·02	68·08	4·90	2,489,657	5·67	14·29	1·03
1931	4,617	24·26	68·96	6·78	2,510,083	4·46	12·68	1·25
1932	4,842	29·16	65·34	5·50	2,531,330	5·57	12·5	1·06
1933	4,809	27·01	66·48	6·51	2,602,037	4·99	12·29	1·20
1934	4,721	23·72	66·70	9·58	2,623,817	4·27	12 00	1·72
1935	4,829	23·67	66·87	9·46	2,645,575	4·32	12·21	1·72

SEX RATIO IN VENEREAL DISEASE NOTIFICATIONS.

The sex ratio for the total notifications of venereal disease for 1935 is 4·22 males to one female. The figures for the past fifteen years are as follows :—

1921...	... 6·44 males to 1 female.	1929...	... 5·28 males to 1 female.
1922...	... 7·69 „ „	1930...	... 4·40 „ „
1923...	... 8·72 „ „	1931...	... 3·94 „ „
1924...	... 7·83 „ „	1932...	... 4·27 „ „
1925...	... 7·75 „ „	1933...	... 4·21 „ „
1926...	... 6·73 „ „	1934...	... 3·68 „ „
1927...	... 6·31 „ „	1935...	... 4·22 „ „
1928...	... 5·00 „ „		

FAILURE TO CONTINUE TREATMENT.

During 1935 the names and addresses of 1,521 defaulters (1,232 males and 289 females) were notified—a figure 49 in excess of that for 1934. Owing to incorrect information having been given or patients having failed to notify change of address, 606 letters were returned unclaimed giving 39·84 per centum undelivered letters compared with 45·17 per centum in 1934 and 20·62 per centum in 1933.

During the year there was a further improvement in the "follow up" of defaulters and the percentage remaining in default of those reported as defaulters was 43·46 which figure is the lowest so far recorded.

The following table shows the percentage of notified defaulters in the last five years who remained apparent permanent defaulters :—

Year.	Total Defaulters notified.	Resumed treatment, Dead, or left State.	Remained in default.	Percentage remaining in default.
1931	709	325	384	54·16
1932	572	268	304	53·15
1933	713	191	522	73·21
1934	1,472	767	705	47·89
1935	1,521	860	661	43·46

CLINICS.

Attendances at clinics for males numbered 158,902 for 1935 compared with 138,567 for 1934 and 110,533 for 1933.

At the clinics for females the attendances were 33,144 for 1935 compared with 30,167 in 1934 and 27,315 in 1933.

The sex ratio of attendances was 4·79 males to one female in 1935 compared with 4·59 males to one female in 1934 and 4·05 males to one female in 1933.

Metropolitan District.—No new clinics were opened in 1935. Ten clinics are available. One clinic for males is continuous (at the Health Department) and one clinic for females has six sessions a week (at the Rachel Forster Hospital for Women).

Newcastle District.—The Newcastle Hospital clinic now appears in the table showing annual total attendances and judging by the figures is filling a long felt want.

District General Public Hospitals.—56 District Hospitals outside the Metropolitan area have provided treatment for persons suffering from venereal disease. Most of these hospitals experience great difficulty in treating gonorrhoea owing to lack of facilities. No special facilities are necessary for the treatment of syphilis.

Bed Accommodation.—Beds are available for 51 males and 59 females.

Health Department Clinic (93 Macquarie-street, Sydney).—The clinic (for males) in the Division of Venereal Diseases has continued to expand and the following figures give a record of the registrations and discharges for 1935 :—

Patients carried forward from 1934			1,374
New patients registered in 1935		2,719	
Former patients who have re-attended after discharge		670	
		3,389	
Gonorrhoea	1,248		
Syphilis	266		
Venereal Warts	19		
Chancroids	2		
	1,535		
Non-Venereal	1,854		
	3,389		3,389
Total			4,763

Attendances for 1935—105,207.

Return showing cases finalised at the Departmental Clinic during 1935.

	Syphilis.	Gonorrhœa.	Venereal Warts.	Non-Venereal.	Chancroid.	Un-diagnosed.	Total.
Discharged (cured)	29	770	14	1,383	...	...	2,169
Transfers	74	131	24	72	...	...	301
Left New South Wales	71	114	2	58	2	51	298
Defaulters	132	185	...	45	...	108	470
Total	...	...	...	...	...	...	3,265
Patients remaining on Clinic and carried forward to 1936							1,498
Total under treatment							4,763

Of the 4,763 cases under treatment, 9·9 per centum became permanent defaulters, showing an improvement of 4·12 per centum as compared with 14·02 per centum for 1934.

Pathological Examinations.—Table 3 shows the use made of laboratory tests for diagnostic purposes and progress reports. In 1935, 34,829 serological tests were made on 16,017 specimens; in 1934 the tests were 35,410 on 16,020 specimens; and in 1933, 34,330 on 14,732 specimens. In 1935, 13,726 smears were examined for detection of gonococci, as compared with 12,785 smears in 1934 and 8,617 in 1933. Examinations for spirochaetes numbered 97 in 1935 compared with 85 in 1934 and 136 in 1933.

Prosecutions.—There were two prosecutions under the Venereal Diseases Act, 1918, namely:—

1. Action taken for breach of Section 25—Fine £5, plus 8s. costs.
2. Action taken for breach of Section 25—Fine 10s., plus 8s. costs.

The following tables are appended:—

Table 1.—Notifications received during the year 1935 arranged in order of district from which the notifications are received.

Table 2.—Return of cases of Venereal Disease notified during 1935 showing forms of disease and age and sex of patients.

Table 3.—Diagnostic examinations for Venereal Disease made in the Microbiological Laboratory during the years 1933–1935 inclusive.

Table 4.—Summary of annual attendances at public clinics, 1933–1935.

TABLE 1.—Notifications received during 1933–1935 arranged in order of districts.

	Metropolitan Area.			Newcastle District.			Remainder of State.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
Gonorrhoea	3,019	2,868	2,851	49	128	220	129	153	158
Syphilis	1,186	1,006	1,041	82	83	74	31	31	28
Soft chancre	4	7	5	...	...	...	...	...	...
Gleet	288	433	378	3	...	21	...	...	...
Venereal warts	8	9	29	...	...	...	...	...	1
Gonorrhoeal ophthalmia	8	1	2	...	...	...	2	...	18
Venereal granuloma	...	2	3	...	...	...	...	...	...
	4,513	4,326	4,309	134	211	315	162	184	205

TABLE II.—Return of cases of Venereal Diseases notified during 1935, showing forms of disease, and age and sex of patients.

Disease.	0 to 5		6 to 10		11 to 15		16 to 20		21 to 25		26 to 30		31 to 35		36 to 40		41 to 45		46 to 50		Over 50		Age not Stated.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhœa ...	1	20	1	21	6	6	324	116	777	130	645	88	386	48	220	26	164	22	103	11	96	8	3	7	2,726	503	3,229
Syphilis	18	8	13	10	9	16	10	30	39	46	61	34	62	59	76	49	110	49	106	44	229	60	4	1	737	406	1,143
Soft chancre ...	...	...	...	...	...	...	2	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	5	...	5
Gleet	...	...	...	...	...	...	10	1	46	2	94	1	85	1	49	1	60	...	32	...	18	...	...	...	394	5	399
Venereal warts...	...	...	...	...	...	...	2	...	9	...	5	...	6	...	2	...	2	...	1	1	2	...	...	...	29	1	30
Gonorrhœal ophthalmia ...	5	4	5	3	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	13	7	20
Venereal granuloma ...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
	24	32	19	34	15	22	349	147	873	179	808	124	540	108	347	75	336	71	242	56	345	68	7	8	3,905	924	4,829

TABLE III.—Diagnostic examinations for Venereal Diseases made in the Microbiological Laboratory during the years 1933–1935, inclusive.

Year.	Gonorrhoea (smears and urine).	Gonorrhoea (Complement Deviation test).	Syphilis (Wassermann Reaction).	Syphilis (Kahns test).	Syphilis (smears for spirochaetes).
1933	8,617	5,464	14,732	14,134	136
1934	12,785	5,294	16,020	14,096	85
1935	13,726	3,511	16,017	15,301	97

TABLE showing Annual Attendance Returns at Public Clinics for treatment of Venereal Diseases, 1932–1935 inclusive.

Year.	Attendances.			New Cases.					
				Gonorrhoea.			Syphilis.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Royal Prince Alfred Hospital.									
1933	31,356	6,580	37,936	359	78	437	84	44	128
1934	28,465	6,315	34,780	306	71	377	29	21	50
1935	22,818	5,833	28,651	251	59	310	31	36	67
Sydney Hospital.									
1933	13,218	5,046	18,264	204	30	234	139	56	195
1934	13,631	5,879	19,510	252	24	276	95	46	141
1935	11,022	5,831	16,853	85	8	93	66	57	123
Royal Alexandria Hospital for Children.									
1933	612	2,560	3,172	...	25	25	7	13	20
1934	589	1,600	2,189	...	27	27	7	8	15
1935	624	1,050	1,674	...	7	7	14	12	26
Royal South Sydney Hospital.									
1933	2,880	1,145	4,025	79	3	82	18	11	29
1934	3,089	1,281	4,270	61	5	66	11	7	18
1935	1,563	741	2,304	37	1	38	10	1	11
Royal North Shore Hospital.									
1933	5,451	1,845	7,296	109	9	118	28	29	57
1934	4,299	1,702	6,001	47	17	64	11	19	30
1935	3,365	1,416	4,781	56	2	58	7	7	14
Rachel Forster Hospital for Women and Children.									
1933	...	8,458	8,458	...	152	152	...	149	149
1934	...	12,057	12,057	...	132	132	...	112	112
1935	352	13,527	13,879	...	145	145	6	129	135
Balmain District Hospital.									
1933	863	1,034	1,897	...	...	...	4	10	14
1934	629	963	1,592	...	...	...	5	9	14
1935	816	776	1,592	...	...	...	7	11	18
Parramatta District Hospital.									
1933	661	195	856	35	10	45	9	2	11
1934	669	314	983	7	5	12	2	3	5
1935	1,158	296	1,454	19	7	26	10	3	13
St. George District Hospital, Kogarah.									
1933	820	452	1,272	15	5	20	25	15	40
1934	77	56	133	2	...	2	2	2	4
1935	403	406	809	...	...	...	5	3	8
Newcastle District Hospital.									
1935	11,441	3,188	14,629	148	34	182	23	30	53
Ryde District Soldiers Memorial Hospital.									
1935	133	80	213	...	2	2	1	...	1

Appendix I.

INTENSIVE VACCINE THERAPY IN ACUTE GONORRHOEA IN THE MALE.

(J. H. ABBOTT, Senior Medical Officer, Government Venereal Diseases Clinic, Sydney.)

Although articles dealing with Vaccine Therapy in Gonorrhoea are very numerous, I have found, in the comparatively small amount of literature at my disposal, very few which deal with intensive vaccine therapy in early gonorrhoea and none demonstrating the results obtained in the treatment of very early cases.

My researches into the literature include only the better known English and American Journals and extend back only to 1909.

As regards cure, comparison with the results shown in the older articles is difficult, as no standard of cure, as we at present understand it, is laid down.

The usual procedure appears to have been to cease treatment as soon as clinical signs disappeared and to place the patient under observation for some period varying in length according to the optimism of the observer. With regard to comparison of the observed facts, we are on sounder ground. For example, Eyre and Stewart (1), referring to the checking of the acute discharge say :—"This and other considerations afford proof that the vaccine exerts a marked influence over the disease; that it acts rapidly and with a tolerable degree of certainty and that it exerts a definite powerful influence over the local and general condition of the patient."

Appendix I.—*continued.*

In the series of cases examined below the same more rapid cessation of the acute discharge was noted. As regards the actual shortening of the course of the disease and the production of various beneficient effects, most observers appear to agree. I may mention Captain A. J. Frost (2), E. D'Arcy McCrae (3), David Lees (4). Two facts emerge :—Practically all are agreed that vaccines do good in the early stages of the disease and most support the statement that complications are less. Notwithstanding this, vaccine therapy has not gained universal favour.

I think this is probably due to the fact that while vaccines may shorten the duration of the disease and cut short the period during which the discharge is profuse, the shortening of this period, although demonstrable, is not striking. With regard to the reduction in the number of complications, the general practitioner or even the specialist, is not impressed by figures such as a reduction of 5 per cent. Moreover, gonorrhoea is one of those complaints which, even if it may sometimes cause much anguish to the patient and possibly occasionally permanent ill-health or disablement, in the great majority of cases, runs a straightforward course and leads to as little inconvenience as the ubiquitous coryza. In fact, when working in a clinic of any considerable size, one is struck by the patients' lack of appreciation of the seriousness of their complaint.

Personally, I consider that if we are able to shorten the course of the disease, to lessen its early disagreeable features and to reduce the percentage number of complications ever so little, we should attempt to do so.

Choice of Vaccine.—On the whole, it would appear that the use of detoxicated vaccines shows little, if any, improvement on the usual stock varieties. I could find no reference to any work with the latter in the more recent articles.

I. N. Orpwood Price and Ambrose J. King (5), experimenting with " a new gonococcal vaccine of low toxicity " (apparently a detoxicated vaccine), gave daily doses of vaccine and obtained a certain amount of success although they state that " the results were disappointing." Their results point to a shortening of the duration of the disease and a definite tendency to reduction in the number of complications and an increase in the number of " quick cures."

E. Cronin Lowe (6) in an article " Some causes of failure of Vaccine Therapy "—suggests the use of vaccine in large doses given daily in acute gonorrhoea and states that detoxicated vaccine is best.

In the series of cases under review, I have attempted to follow out the principle laid down by this writer, except that I used the ordinary stock vaccine as supplied by the Microbiological Laboratory.

Selection of Cases.—I have used vaccines in chronic cases and have not been impressed, in carriers the results would appear to be better; in arthritis and fibro-myositis I have seen good results, but it was the apparent more rapid clearing up of the acute discharge in the very early cases that first lead me to attempt to investigate the effect on these cases more closely.

The number of cases under review is admittedly very small, but, I think, large enough to justify certain " impressions " if not conclusions.

During the ordinary routine of the clinic, fifty-nine (59) unselected cases were started on the vaccine course, the usual routine treatment being carried on as well. As the method adopted necessitated the doctor's seeing every case each day, it was impossible to deal with a larger number of cases, the present medical staff being insufficient.

Of the fifty-nine cases, twenty-three fell by the wayside as defaulters or transfers to other centres before completing their treatment or tests of cure.

The remaining thirty-six cases were made up as under :—

17 had had signs or symptoms up to one day.

12 ,, ,, ,, over one day and up to two days.

7 ,, ,, ,, over two days or up to three days.

None of the patients had had any treatment prior to attending the clinic.

(1) *Method.*—An ordinary stock vaccine, for which I must thank the Microbiological Laboratory, was used. The initial dose in all cases, was fifty million organisms given on the first day of attendance. The general rule was to advance daily subsequent doses by fifty million organisms but to avoid any marked general or local reactions. This latter necessitated sometimes prolonging the interval between doses up to four days or reducing the subsequent dose to that previously administered and occasionally to even less than the previous dose. A reduction in dose was favoured rather than an increase in the interval between injections. There were some fairly marked local reactions but general reactions were few and very slight. In some of the later cases, by using a more concentrated vaccine, it was found possible to reduce considerably the number of marked local reactions.

(2) *Time of Administration and Quantity Used.*—As stated above, the vaccine was used in conjunction with the usual routine irrigation treatment and was continued as long as there was any improvement, until the case became definitely posterior, or until any major complication (*e.g.*, epididymitis) occurred. The maximum single dose administered was seven hundred and fifty million organisms.

TABLE 1.—Showing the amount of Vaccine and time of administration.

Discharge Present.	All Cases.			" Quickest " Case.			" Slowest " Case.		
	Average Amount of Vaccine.	Average Time of Administration.	Average Time of Treatment.	Average Amount of Vaccine.	Average Time of Administration.	Average Time of Treatment.	Average Amount of Vaccine.	Average Time of Administration.	Average Time of Treatment.
days.	millions.	days.	weeks.	millions.	days.	weeks.	millions.	days.	weeks
1	2,840	26·5	9·1	900	12	2·6	4,350	38	23·5
2	3,011	26·0	10·5	4,400	23	4·5	3,600	26	22·5
3	2,736	24·7	11·9	3,300	22	4·5	1,250 (Epididymitis)	11	20·9
1, 2, and 3 days...	2,881	28·1	10·2	...	...	...	...	...	...

Tests of Cure.—In this respect I was somewhat unfortunate with regard to the C. F. Tests. The Microbiological laboratory at the time being under-staffed and overworked, found it impossible to do routine C. F. Tests, on my cases. I was forced therefore, to set a standard of cure not including the C. F. Test. This was as follows :—

1. Absolute freedom from discharge for six weeks with no treatment.
2. Absence of signs or symptoms of disease.
3. No return of discharge after passage of straight sounds with urethral massage (and on doubtful cases urethral smears) followed in one week by passage of curved sounds.
4. Three smears made from expression from seminal vesicles and prostate contained only an " occasional pus cell " (see definition below) on three successive weeks.
5. Urine clear and free from threads for at least four weeks.
6. Prostate and seminal vesicles normal to digital examination.
7. Urethroscopy on doubtful cases.

Controls.—For comparison with the results obtained with the vaccine therapy, two sets of consecutive cases were taken from the records. Each consisted of seventeen (17) consecutive cases with discharge present one day; twelve (12) with discharge present two days, and seven (7) with discharge present three days. About twelve months separated the two sets of controls in the records. This choice of cases was made to correspond with the time of disease in the vaccine treated cases.

Anterior or Posterior ?—This always appears a very debatable point, consequently I have set out a few rules (see below) on which the diagnosis was made in this series of cases. These rules, if inadequate and possibly inaccurate, have the saving grace of acting as a control to the diagnosis in the three sets of cases and so dispel any chance of bias one way or the other.

The question of prostate involvement (apart from obvious gross infection) is often disputed. Actually every case of posterior infection surely must have some prostatic involvement. However, to bring the results into line, I have appended a further set of rules governing the diagnosis of this condition in this series of cases.

There were no very gross prostatic complications.

ANTERIOR OR POSTERIOR.

A. *Posterior.*—Two or more of the following symptoms and/or signs :—

1. Return of urethral discharge, scalding and frequency (or two of these).
2. Rectal pain.
3. Terminal haematuria.
4. Painful erections or frequent emissions.
5. Turbid second glass test on more than one occasion.
6. Prostatic smears containing numerous pus cells or " positive " on two or more occasions.
7. P. R. examination—enlargement and tenderness of prostate or seminal vesicles.
8. Prostatic massage—Turbid.

B. *Posterior* (Probable).—Two or more of the following (or one of A (2) to A (8)).

1. Return of urethral discharge, scalding and frequency (or two of these).
2. Haematuria (not necessarily terminal).
3. Prostatic smears containing pus cells or a few pus cells on more than one occasion, " positive " or numerous pus cells on one occasion or prostatic massages hazy.
4. Perineal pain.
5. Turbid second glass on one occasion.
6. P. R. examination—slight tenderness and enlargement.

C. ?? *Posterior* (Possible).—Two or more of the following (or one of B (2) to B (6)).

1. Return of urethral discharge, scalding and frequency (or one of these).
2. Prostatic smears containing occasional pus cells on more than one occasion, or pus cells or a few pus cells on one occasion, or prostatic massages slightly hazy.
3. P. R. examination—slight painless enlargement or slight tenderness without enlargement.
4. Hazy second glass on more than one occasion.

D. *Anterior.*—C (1) to C (3) alone are considered anterior :—

1. Prostatic smears and Prostatic massages (if any) clear.
2. No return of urethral discharge after straight sounds followed in one week by curved sounds.
3. P. R. normal to digital examination.

Prostatic Smears.—(Owing to the method of massaging the urethra to obtain material for a smear (after previous prostatic massage) the test may become a posterio-anterior test and is not 100 per cent prostatic.)

Results of Prostatic smears :—

1. " Positive " means gonococci detected.
2. " Numerous pus cells " is self explanatory (over 24 per field).
3. " Pus cells " means over 12 and up to 24 per field.
4. " Few pus cells " means over 3 and up to 12 per field.
5. " Occasional pus cell " means 1 to 3 pus cells per field.
6. " No pus cells " is self explanatory—(no pus cells or gonococci).

E. *Prostatic Involvement.*—(Not including very acute cases or prostatic abscess.) Two or more of the following (or (2) (a) alone) :—

1. P. R.—Tenderness and enlargement of prostate gland.
2. Prostatic massage turbid.
2. (*a*) Prostate massages turbid on two or more occasions.
3. Prostatic smear—numerous pus cells or " positive " on more than one occasion.
4. Prostatic smear—numerous pus cells or " positive " on one occasion with slight enlargement and slight tenderness of prostate.

F. ? *Prostatic Involvement.*—(Any one of E. alone.) Two or more of the following (or (3) (*a*) alone) :—

1. Prostatic smears—pus cells or a few pus cells on more than one occasion.
2. Prostatic smears—numerous pus cells or " positive " on one occasion.
3. Prostatic massage—hazy.
3. (*a*) Prostatic massages hazy on more than one occasion.
4. Slight enlargement and slight tenderness of the prostate.
5. Painful erections.

G. ?? *Prostatic Involvement.*—(Any one of F alone). Two or more of the following (or (3) (*a*) alone):—

1. Prostatic smears—occasional pus cells on more than one occasion.
2. Prostatic smears—pus cells or a few pus cells on one occasion.
3. (*a*) Prostatic massages—faint haze on two or more occasions.
4. P. R.—Slight enlargement of prostate.
5. P. R.—Slight tenderness of prostate.

" *Quick Cures.*"—There appears to be a tendency for a greater number of quick cures in vaccine treated cases as compared with those receiving no vaccine. This same tendency has been noted by other observers.

In Section (4) of Table II, which shows the times of cure in the total number of cases, it will be seen that at the end of the eighth week 16 (44·4 per cent.) of the vaccine treated cases were cured as compared with 9 (25 per cent.) and 13 (36·1 per cent.) of the control series.

In Sections (1), (2) and (3) of the same table is shown the times of treatment in the three clinical groups under review. It will be noticed that the tendency for quick cures is most marked in Section (1), (*i.e.*)—in patients with discharge present up to one day. In this section at the end of the eighth week, 10 cases (58·8 per cent.) were cured in the vaccine treated patients as compared with 4 cases (23·5 per cent.) and 7 cases (41·2 per cent.) in the two control series.

Table II.—Period required for cure.

Time in weeks required to produce a cure.	Number of Cases.											
	(1) Discharge for one day.			(2) Discharge for two days.			(3) Discharge for three days.			(4) Discharge for one, two, and three days.		
	Vaccines.	No vaccines.		Vaccines.	No vaccines.		Vaccines.	No vaccines.		Vaccines.	No vaccines.	
		1st Control.	2nd Control.		1st Control.	2nd Control.		1st Control.	2nd Control.		1st Control.	2nd Control.
2 to 3 …………	3	1	0	0	0	1	0	0	0	3	1	1
3 ,, 4 …………	1	0	1	0	0	0	0	0	0	1	0	1
4 ,, 5 …………	0	2	2	3	1	0	1	0	0	4	3	2
5 ,, 6 …………	0	0	1	0	1	1	0	0	2	0	1	4
6 ,, 7 …………	3	0	0	1	0	1	0	0	0	4	0	1
7 ,, 8 …………	3	1	3	1	2	1	0	1	0	4	4	4
8 ,, 9 …………	0	2	1	0	1	4	2	0	0	2	3	5
9 ,, 10 …………	1	1	3	0	0	1	0	1	1	1	2	5
10 ,, 11 …………	0	2	0	0	1	1	1	0	1	1	3	2
11 ,, 12 …………	0	3	0	4	1	0	0	1	0	4	5	0
12 ,, 13 …………	1	0	0	0	1	0	1	1	0	2	2	0
13 ,, 14 …………	3	2	3	1	2	0	0	1	0	4	5	3
14 ,, 15 …………	1	0	1	1	0	0	0	1	1	2	1	2
15 ,, 16 …………	0	2	0	0	0	0	0	0	0	0	2	0
16 ,, 17 …………	0	0	0	0	0	0	0	0	0	0	0	0
17 ,, 18 …………	0	1	0	0	0	0	0	0	1	0	0	1
18 ,, 19 …………	0	…	0	0	0	0	1	0	0	1	1	0
19 ,, 20 …………	0	…	0	0	1	0	0	1	0	0	2	0
21 ,, 21 …………	0	…	1	0	0	0	0	…	0	1	0	1
21 ,, 22 …………	0	…	0	0	1	1	1	…	0	0	1	1
22 ,, 23 …………	0	…	1	1	…	1	…	…	1	1	0	3
23 ,, 24 …………	1	…	…	…	…	…	…	…	…	1	0	…

Table III.—Analysis of all cases investigated.

I. Anterior and Posterior Cases. II. Complications.	Vaccine.	No Vaccine.		
		1st Series of Controls.	2nd Series of Controls.	
Total number of cases………	36	36	36	Discharge present up to 3 days.
Remained anterior ………………	20 } 26 ……… (72·2%)	14 } 24 ……… (66·7%)	16 } 21 ……… (58·3%)	Probable anterior cases.
Became ?? posterior (possible)…	6	10	5	
Became ? posterior (probable) …	3 } 10 ……… (27·8%)	4 } 12 ……… (33·3%)	5 } 15 …… (41·7%)	Probable posterior cases.
Became posterior ………………	7	8	10	
?? Prostatic involvement (possible).	8 ……………	10 ……………	5 ……………	Doubtful prostatic involvement.
? Prostatic involvement (probable).	2 } 5 ……… (13·9%)	4 } 8 ……… (22·2%)	2 } 5 ……… (13·9)	Probable prostatic involvement.
Prostatic involvement …………	3	4	3	
Vasitis ………………………………	2 (5·5%) ……	1 (2·8%) ……	0 ………… ..	.. …… … ………
Epididymitis ………………………	2 (5%) ……	3 { 1 double (8·3%) }	6 (16·7%) ……	Patients, not cases.
Peri-urethral inflammation ……	1 (resolved) …	0 ………………	1 (abscess) …	………………………
Fibro-myositis (rheumatism) …	1 (mild) ………	0 ………………	0 ………………	………………………
Inguinal adenitis ………………	1 (resolved) …	1 (resolved) …	2 (resolved) …	………………………
Balano-posthitis ………………	0 ………………	2 (5·5%) ……	1 (2·8%) ……	………………………
Pyelitis ………………………………	0 ………………	?1 ………………	0 ………………	………………………
Oedema of penis ………………	0 ………………	0 ………………	5 ………………	(All except one case occurred before attending the clinic; possibly no note was made on history cards in columns 1 & 2.)
Venereal warts ………………	1 ………………	0………………	0 ………………	
Average time of treatment …	10·2 } 18·0……	11·3 } 18·1 ……	10·7 } 18·1……	Total time at Clinic.
Average time of investigation..	7·8	6·8	7·4	

Table IV.—Analysis of Separate Groups according to duration of symptoms before attendance at Clinic.

I. Anterior and Posterior Cases. II. Complications.	Vaccine.	No Vaccine.		
		1st Series of Controls.	2nd Series of Controls.	
(1) Total number of cases	17	17	17	Discharge present up to 1 day.
Remained anterior	11 } 14	7 } 11	7 } 10	Probable anterior cases.
Became ?? posterior (possible)	3	4	3	
Became ? posterior (probable)	0 } 3	1 } 6	3 } 7	Probable posterior cases.
Became posterior	3	5	4	
?? Prostatic involvement (possible).	4	5	5	Doubtful prostatic involvement.
? Prostatic involvement (probable).	0 } 2	1 } 3	1 } 2	Probable prostatic involvement.
Prostatic involvement	2	2	1	
Vasitis	0	2	0	
Epididymitis	0	0	1	
Peri-urethral inflammation	1 (resolved)	0	0	
Fibro-myositis (rheumatism)	1	0	0	
Inguinal adenitis	1 (resolved)	0	1 (resolved)	
Pyelitis	0	?1	0	
Oedema of penis	0	0	2 (present on 1st attendance).	
Venereal warts	1	0	0	
Average time of treatment	9·1 } 16·5 weeks.	10·5 } 17·3 weeks.	10·4 } 18·1 weeks.	Total time at Clinic.
Average time of investigation	7·4	6·8	7·7	
(2) Total number of cases	12	12	12	Discharge present 2 days.
Remained anterior	6 } 9	5 } 9	7 } 8	Probable anterior cases.
?? Became posterior (possible)	3	4	1	
? Became posterior (probable)	2 } 3	1 } 3	1 } 4	Probable posterior cases.
Became posterior	1	2	3	
?? Prostatic involvement	3	2	0	Doubtful prostatic involvement.
? Prostatic involvement	2 } 2	1 } 3	1 } 2	Probable prostatic involvement.
Prostatic involvement	0	2	1	
Vasitis	1	0	0	
Epididymitis	1	2	2	
Inguinal adenitis	0	1	1	
Oedema of penis	0	0	1	
Balano-posthitis	0	1	1	
Average time of treatment	10·5 } 18·6 weeks.	11·5 } 18·6 weeks.	10·2 } 17·7 weeks.	Total time at Clinic.
Average time of investigation	8·1	7·1	7·5	
(3) Total number of cases	7	7	7	Discharge present 3 days.
Remained anterior	3 } 3	2 } 4	2 } 3	Probable anterior cases.
?? Became posterior (possible)	0	2	1	
? Became posterior (probable)	1 } 4	2 } 3	1 } 4	Probable posterior cases.
Became posterior	3	1	3	
?? Prostatic involvement	1	3	0	Doubtful prostatic involvement.
? Prostatic involvement	0 } 1	2 } 2	0 } 1	Probable prostatic involvement.
Prostatic involvement	1	0	1	
Vasitis	1	0	0	
Epidymitis	1	1	3	
Peri-urethral inflammation	0	0	1 (abscess formation requiring incission.	
Oedema of penis	0	2	2	
Balano-posthitis	0	0	0	
Average time of treatment	11·9 } 20·3 weeks.	12·7 } 18·9 weeks.	12·2 } 18·9 weeks.	
Average time of investigation	8·4	6·2	6·7	

Table V.—Difference in the time required for cure in the vaccine-treated and the control cases.

		Control No. 1.	Control No. 2.
Discharge present one day	17 patients	1·4 weeks	1·3 weeks.
Discharge present two days	12 ,,	1·0 ,,	(— 0·3 weeks).
Discharge present three days	7 ,,	0·8 ,,	0·3 weeks.
All cases	36 patients	1·1 weeks	0·5 weeks.

Average Time of Treatment.—This was not very markedly shortened, but a definite tendency to shortening was noted. This is most marked in the very early cases, *i.e.*, patients with the discharge present up to one day (Table V).

The average times of treatment and investigation are shown in Tables III and IV.

It will also be noted that the times of investigation of vaccine-treated cases and Control No. (2) is larger than in the case of Control No. (1). This is due to the fact that whereas the C.F. Test was available for cases in No. (1) series of controls, a standard of cure had to be decided on in the vaccine and control No. (2) cases which did not include the C.F. test. This often necessitated a longer period of observation being maintained.

Although this is a very small series of cases, the difference in time is suggestive. Especially is this so in the very early cases. In the later cases the approximation of the time seems to suggest that some factor besides the actual loss of time before commencing treatment is at work.

A latent period occurring within the first few days in gonorrhoea has been described. Possibly this fact may interfere with the vaccine treatment in the less early cases.

Anterior or Posterior.—Various writers have stated that 75 per cent. of gonorrhoea cases become posterior.

E. D'Arcy McCrae (3) found 88 per cent. in patients not treated with vaccine, and 81 per cent. in vaccine-treated cases. These patients were all self-irrigated, and attended thrice weekly for examinations by the Medical Staff. In addition to this, Dr. D'Arcy McCrae's two-glass test is very searching, and requires less than 6–7 pus cells per field in the centrifuged deposit of the second glass to denote an anterior infection only.

David Lees (9) gives 70 per cent. to 80 per cent. as an approximate figure for posterior urethritis.

A study of Tables III and IV will show that in this series of cases (108 in all) only 24 per cent. (25 cases) were definitely posterior, 10·4 per cent (12 cases) were probably posterior, making a total of 34·3 per cent. (37 cases) in these two classes. This leaves 65·7 per cent. (71 cases); of these 19·4 per cent. (21 cases) were possibly posterior. The remainder, 46·3 per cent. (50 cases) showed no evidence of posterior involvement. This figure for posterior involvement is lower than any I have seen, with the exception of that given by Pelouze (8), who states that less than 15 per cent. of co-operating patients if treated early by his method become posterior.

This latter figure appears to me to be extremely low, our figure for definite posterior involvement being even higher than this (*i.e.*, 24 per cent.).

With regard to the effect of vaccine therapy on posterior involvement, Tables III and IV indicate that the tendency to become posterior is, if anything, lessened by the use of vaccine. This appears to be only marked in very early cases, *i.e.*, patients with discharge present up to one day. In case groups (2) and (3) there appears to be no influence either for good or evil as regards posterior involvement.

Complications.—If the main complications in the three groups of thirty-six cases are considered *i.e.*, (1) probable prostatic involvement, (2) vasitis, (3) epididymitis, (4) peri-urethral inflammation, (5) fibro-myositis, (6) inguinal adenitis, it will be observed that in the vaccine-treated cases 33·3 per cent. (12 cases), as compared with 36·1 per cent. (13 cases), and 38·8 per cent. (14 cases) in the control series were affected.

Taking the three main complications ((1), (2) and (3) of the above list), the figures are 25 per cent. (9 cases) as compared with 33·3 per cent. (12 cases) and 30·5 per cent. (11 cases).

On the whole then, in this series of cases, there would appear to be a tendency towards the appearance of less complications.

1. *Prostatic Involvement.*—In this series there were no cases of a really acute Prostatitis; there were a few with fairly definite enlargement and tenderness but the great majority came into the class of possible or probable prostatic involvement. In the whole series of 108 cases, only 9·3 per cent (10 cases) had definite prostatic involvement, 7·4 per cent. (8 cases) probable and 21·3 per cent. (23 cases) possible prostatic involvement. The total number of these prostatic cases was 41 (37·9 per cent.). The remainder 67 cases (62·1 per cent.) showed no evidence of prostatic infection. There were slightly fewer cases in the vaccine treated cases as compared with both groups of controls.

2. *Epididymitis and other Complications.*—In such a small series of cases, it is impossible to draw conclusions and difficult even to form impressions. Complications were few and not severe, epididymitis being the only one, excluding prostatic involvement, which appeared to any extent. In 108 patients there were 11 cases (10·2 per cent.) which figure corresponds very closely with that found when I examined the histories of 386 other cases of gonorrhoea, the figure being 9·3 per cent. on that occasion (7). In 7 the right side was affected; in 2 the left side; in 1 both sides and in 1 the location was not stated.

From the figures (Tables III and IV), it would appear that the vaccine had a tendency to reduce the number of cases of epididymitis. In the vaccine treated patients the figure was 5·5 per cent (2 cases) as against 8·3 per cent. (3 cases, of which one was double) and 16·7 per cent. (6 cases).

With regard to other complications their number is so small as to exclude individual discussion.

As Vaccine Therapy was discontinued on the appearance of any complication, its curative effect, if any, on these conditions, was not noted.

Impression.—It will be seen that it is in the cases which came for treatment within the first twenty-four hours where the most marked effect of the vaccine treatment was noted.

1. The tendency towards quick cures was most marked in group (1).
2. The shortening of the average time of treatment was most marked in group (1).
3. The tendency to remain anterior is most marked in group (1), less so in group (2), and absent in group (3).

The number of cases of prostatic involvement shows little variation in the vaccine and non-vaccine treated cases. Epididymitis cases were less in the vaccine treated patient.

It would appear therefore that a certain amount of justification exists for a more extensive trial of Vaccine Therapy of the intensive type, particularly in the very early stages.

I intend at my earliest opportunity to try the effect of vaccine on a further series of cases as I consider that I was perhaps a little timid with regard to the dosage in the series under review.

Particularly am I convinced of this with regard to the initial dose. In the whole series of cases there was not one patient who reacted badly to the first injection and, as mentioned above, general reaction in the whole series of injections were few and mild.

The results on the whole, correspond with those found by other observers using stock, autogenous, or detoxicated vaccines.

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3. Vaccine in the Treatment of Gonorrhoea.—E. D'Arcy McCrae, M.D., Ch.M., B.M.J., v. 1, 1923, p. 755.

4. David Lees.—B.M.J., v. 2, 1933, p. 105.

5. A New Gonococcal Vaccine of Low Toxicity.—I. N. Orpwood Price and Ambrose J. King., B M.J., v. 1, 1934, p. 748.

6. Some Causes of Failure of Vaccine Therapy.—E. Cronin Lowe., B.M.J., v. 1, 1932, p. 1160.

7. Annual Report of the Director General of Public Health, 1934.—V.D. Division, p. 105.

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9. Lees, David, " Treatment of Venereal Diseases."—2nd ed., 1931, p. 371.

SECTION I.—D.

TUBERCULOSIS DIVISION.

ANNUAL REPORT OF THE DIRECTOR FOR THE YEAR ENDED 31st DECEMBER, 1935.

Staff.

Director—Dr. H. G. Wallace, M.B., B.S., D.P.H.

Medical Officer—Dr. J. Hughes, M.B., Ch.M.

1 Clerk, 4 nurses.

The investigation of notified cases from the familial aspect has been continued, particular attention being given to the group of young adults of ages ranging from fifteen to twenty-five years, with a view to early diagnosis by radiographic and clinical methods. This enables appropriate treatment to be undertaken in the stages where it most likely to be effective, and permits of a better understanding of the sources and paths of infection. As data accumulate it is becoming increasingly evident that contact with cases of infection, often unsuspected, in other members of the family group is an important factor in the transmission of the disease.

During the year, close contact has been maintained by the Division with the anti-tuberculosis clinics, of which there are at present three in the metropolitan area (at the Royal Prince Alfred Hospital, the Royal North Shore Hospital and the Anti-Tuberculosis Association of New South Wales), and one extra-metropolitan clinic at the Newcastle Hospital. Visits were made by the medical staff at intervals during the year to most of the institutions caring for tuberculosis patients, with a view to continuance of co-operation in anti-tuberculosis work.

The Trustees of R. T. Hall Sanatorium at Hazelbrook made arrangements during the latter part of the year, in co-operation with the Division, to make beds available for selected cases of suitable type, to which patients under the supervision of the Division may be allotted.

Throughout the year the Medical Officer, in addition to the visiting nurses, has visited the homes of numerous patients to investigate and advise regarding appropriate methods of prevention and treatment.

The Board of Control of the Campaign against Tuberculosis met on five occasions during the year. A scheme for the control of tuberculosis in New South Wales was drawn up by the Board and submitted to the Minister for Health by a deputation from the Board in the latter part of the year. The various items included in the scheme were grouped in what the Board considered to be the order of urgency.

The Board recommended the compulsory notification of all forms of tuberculosis throughout the State. This has been embodied in a draft amendment of the Public Health Act, prepared during the year. It is proposed that pulmonary tuberculosis shall be notifiable on definite radiological or pathological evidence and not only on the sputum test, as at present.

Notification.—The total number of notifications of pulmonary tuberculosis for the whole State in 1935 was 1,572, an increase of 63 cases compared with 1,509 cases notified in 1934. In the metropolitan district there was an increase of 9 cases, in the Hunter River District an increase of 31 cases, and in the Broken Hill District an increase of 4 cases, while in the remainder of the State there was an increase of 19 cases. There were 939 deaths from pulmonary tuberculosis compared with 955 in 1934.

Details of the distribution and of the age and sex incidence of the notified cases are shown in Table I.

The monthly incidence throughout the year and the number of notifications marked by the notifying medical practitioner " to be visited "; and " not to be visited," by a departmental officer are shown in Table II. In the case of patients whose notifications are marked " not to be visited " the notifying medical practitioner assumes responsibility for advising the patient as to preventing the spread of infection. How far this system is desirable is a matter of opinion, but it is undoubtedly open to abuse, and is a definite hindrance to the investigation of family histories by the Division.

Notifications.

TABLE 1.—Showing the age and sex incidence of the cases of Pulmonary Tuberculosis notified during the year 1935.

Age Period.	Metropolitan Combined Sanitary District. Mean Population : 1,322,080.			Hunter River Combined Sanitary District. Mean Population : 214,850.			Broken Hill Combined Sanitary District. Mean Population : 26,790.			Remainder of State. Mean Population : 1,081,855.			Whole State. Mean Population : 2,645,575.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total
Under 1 year	1	2	3	...	...	...	...	...	...	...	...	...	1	2	3
1– 4	...	1	1	...	...	...	...	...	...	1	...	1	1	1	2
5–14	10	8	18	...	1	1	...	...	...	4	...	4	14	9	23
15–24	71	156	227	4	14	18	1	1	2	19	20	39	95	191	286
25–34	111	163	274	11	7	18	1	3	4	33	34	67	156	207	363
35–44	164	80	244	17	10	27	3	...	3	37	21	58	221	111	332
45–54	176	49	225	11	4	15	3	...	3	32	9	41	222	62	284
55–64	103	33	136	12	5	17	4	...	4	19	2	21	138	40	178
65 and over	54	18	72	3	3	6	...	1	1	13	9	22	70	31	101
All ages	690	510	1,200	58	44	102	12	5	17	158	95	253	818	654	1,572

TABLE 2.—Showing monthly incidence of notified cases of Pulmonary Tuberculosis and also incidence of cases "To be Visited" and cases "Not to be Visited," year 1935.

Month.	Metropolitan Combined Sanitary District.		Hunter River Combined Sanitary District.		Broken Hill Combined Sanitary District.		Remainder of State.		Whole State.	
	To be Visited.	Not to be Visited.	To be Visited.	Not to be Visited.	To be Visited.	Not to be Visited.	To be Visited.	Not to be Visited.	To be Visited.	Not to be Visited.
January	57	16	6	2	...	...	4	7	67	25
February	87	28	10	...	...	...	12	14	109	42
March	81	13	12	...	...	...	12	10	105	23
April	120	23	6	3	5	2	24	16	155	44
May	104	20	5	1	2	2	16	5	127	28
June	85	11	7	2	...	...	9	16	101	29
July	60	11	4	2	...	...	6	5	70	18
August	89	18	5	3	...	...	13	8	107	29
September	78	13	9	...	...	...	13	2	100	15
October	59	12	2	...	3	...	6	5	70	17
November	116	25	11	3	1	1	15	10	143	39
December	63	11	7	2	1	...	15	10	86	23
Totals	999	201	84	18	12	5	145	108	1,240	332

Deaths.

TABLE 3.—Showing the number of deaths from all forms of Tuberculosis in (*a*) Metropolis, (*b*) whole State, during the year ended 31st December, 1935.

	Metropolis.			Whole State.		
	Males.	Females.	Total.	Males.	Females.	Total.
Respiratory system	357	204	561	589	350	939
Meninges and nervous system	8	8	16	17	14	31
Other	13	15	28	33	26	59
Total	378	227	605	639	390	1,029

TABLE 4.—Showing the age and sex of the persons whose deaths from Pulmonary Tuberculosis were notified during the year ended 31st December, 1935.

Age Period.	Metropolitan Combined Sanitary District. Mean Population : 1,322,080.			Hunter River Combined Sanitary District. Mean Population : 214,850.			Broken Hill Combined Sanitary District. Mean Population : 26,790.			Remainder of State. Mean Population : 1,081,855.			Whole State. Mean Population : 2,645,575.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under 1 year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4 years	1	...	1	...	...	...	...	...	...	...	2	2	1	2	3
5–14 ,,	4	2	6	...	...	...	...	...	...	...	...	...	4	2	6
15–24 ,,	23	38	61	1	5	6	...	...	...	11	19	30	35	62	97
25–34 ,,	50	67	117	8	8	16	1	...	1	26	31	57	85	106	191
35–44 ,,	78	35	113	7	3	10	1	...	1	29	31	60	115	69	184
45–54 ,,	97	39	136	7	1	8	3	...	3	30	11	41	137	51	188
55–64 ,,	77	23	100	7	4	11	2	1	3	31	7	38	117	35	152
65 and over	57	16	73	7	2	9	...	...	...	31	5	36	95	23	118
All ages	387	220	607	37	23	60	7	1	8	158	106	264	589	350	939

Institutional Accommodation.

TABLE 5.—Showing Institutional Accommodation available for patients suffering from Pulmonary Tuberculosis.

Sanatoria and Hospitals.	Type of Cases Received.	Number of Beds.		
		Male.	Female.	Total.
1. Waterfall Sanatorium (under Government control)	Intermediate	292	136	428
2. Randwick Auxiliary Hospital (under Government control)	Late	90	30	120
3. Queen Victoria Homes (subsidised)—				
Thirlmere	Early female	...	54	54
Wentworth Falls	Early male	54	...	54
4. Red Cross Society (subsidised)—				
"Bodington" at Wentworth Falls	Early male and female	89	9	98
"Malahide" at Pennant Hills	Late male and female	15	6	21
"Southern" at Exeter	Male quiescent	20	...	20
(The above institutions work in full co-operation with the Tuberculosis Division.)				
R. T. Hall Sanatorium		4	4	8
Private Hospitals (approximately)		...	...	40
Repatriation Department—				
Prince of Wales Hospital		65	...	65
Lady Davidson Home		77	...	77
				985

TUBERCULOSIS.

Annual Death Rate per 100,000 of the Population in New South Wales, 1875-1935.

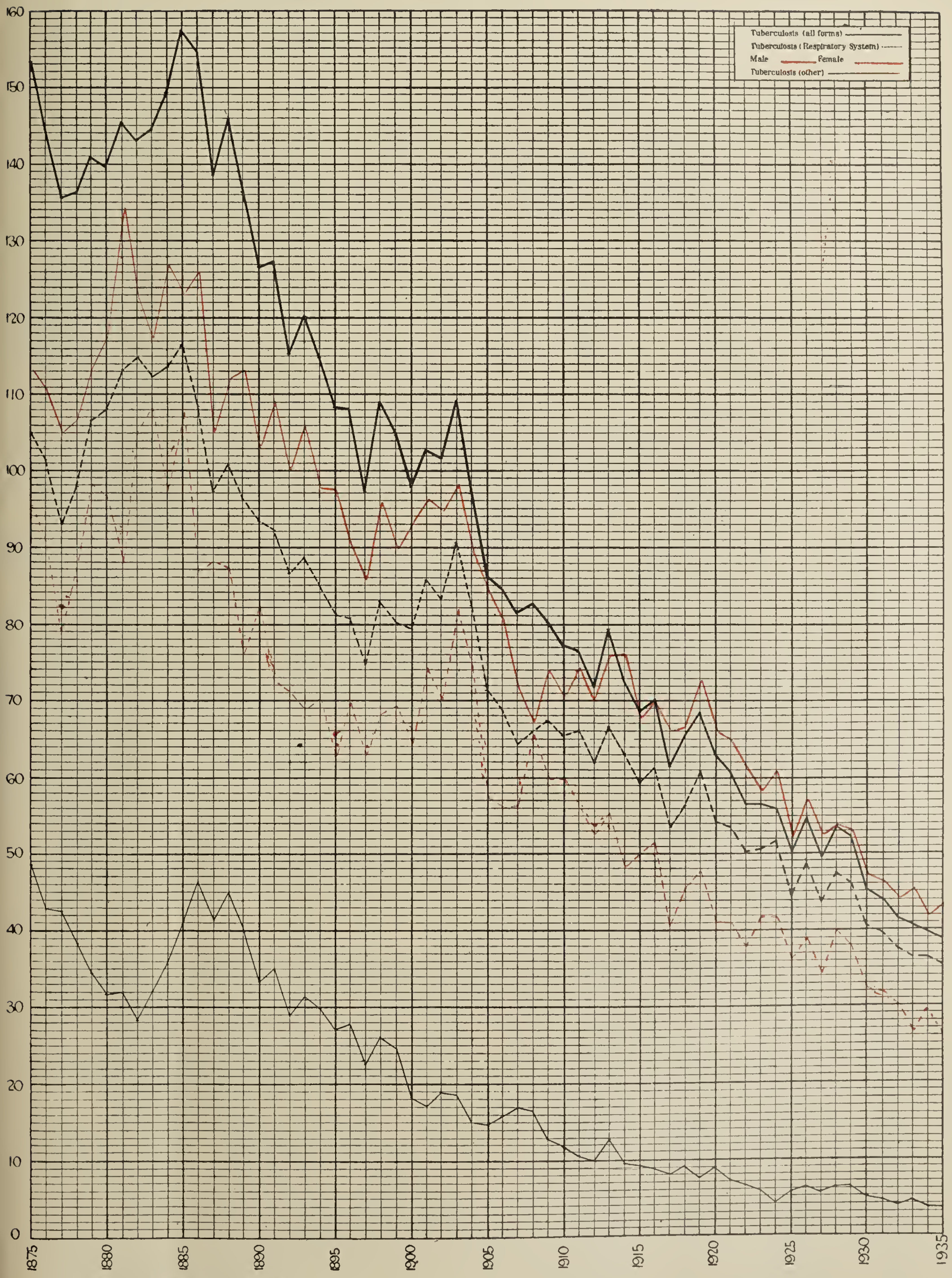

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Table 6.—Showing number of patients receiving Institutional treatment during 1935.

	Queen Victoria Sanatorium, Wentworth Falls.	Queen Victoria Sanatorium, Thirlmere.	Red Cross Sanatorium, Wentworth Falls.	Waterfall Sanatorium.	Red Cross Hospital, Pennant Hills.	Coast Auxiliary Hospital, Randwick.	Red Cross Convalescent Home, Exeter.
1. Number of patients in Institution on 1st Jan., 1935...	43	49	71	338	19	No record kept.	19
2. Number of patients admitted during 1935	70	77	95	535	30		20
3. Number of patients discharged (including deaths) during 1935	62	79	96	487	28	,,	29
4. Number of patients remaining in Institution on 31st December, 1935	51	47	70	386	21	,,	10
5. Average daily number of beds occupied	46·14	49·86	67	384·72	20·48	,,	11·47

Average Residence in Sanatoria and Hospitals.

Table 7.—Showing the average residence in days and condition on discharge from Sanatoria and Hospitals of patients under treatment during 1935.

Condition on Discharge.	Queen Victoria Sanatorium, Wentworth Falls.		Queen Victoria Sanatorium, Thirlmere.		Red Cross Sanatorium, Wentworth Falls.		Waterfall Sanatorium.		Red Cross Hospital, Pennant Hills.		Red Cross Convalescent Home, Exeter.	
	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.
1. Arrested (A.)	...	...	...	...	...	...	1	2,141	...	...	...	...
2. Quiescent (Q.)	28	203·79	36	235·52	16	341	23	456	...	...	...	...
3. Much Improved (M.I.) ...	23	234·81	17	277·23	25	276	164	238	3	210	...	...
4. Improved (I.)	6	148	7	248·86	30	237	162	136	2	118	31	124·32
5. Stationary (S.)	...	...	8	99·12	15	86	35	222	5	82	4	36·33
6. Worse (W.)	5	277·8	11	126·63	8	257	20	393	3	37	3	97·6
7. Dead (D.)	...	...	...	...	2	601	82	456	15	73	...	...
Total	62	215·86	79	216·72	96	250·14	487	254	28	520	38	113·0

Table 8.—Showing condition of patients on admission to, and discharge from, Institutions for the treatment of Pulmonary Tuberculosis during 1935.

Condition on Admission.	Queen Victoria Sanatorium, Wentworth Falls.								Queen Victoria Sanatorium, Thirlmere.								Red Cross Sanatorium, Wentworth Falls.								Waterfall Sanatorium.								Red Cross Hospital, Pennant Hills.							
	Condition on Discharge.								Condition on Discharge.								Condition on Discharge.								Condition on Discharge.								Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	5	...	...	...	...	...	5	...	18	2	2	2	...	...	24	...	6	9	5	5	...	...	25	...	4	7	1	...	...	...	12	...	...	...	...	...	...	...	...
L2T1	...	20	16	1	...	3	...	40	...	8	2	1	...	4	...	15	...	10	14	13	6	3	1	47	...	3	25	23	5	...	4	60	...	...	...	...	...	...	...	...
L1T2	...	...	...	...	...	...	...	...	...	5	...	...	1	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
L2T2	...	3	6	5	...	2	...	16	...	2	5	3	2	1	...	13	...	...	...	...	...	...	...	...	1	3	10	5	...	1	...	20	...	...	2	...	1	...	...	3
L3T1	...	...	1	...	...	...	...	1	...	1	4	1	3	...	...	9	...	...	2	7	2	1	...	12	...	10	73	61	11	8	19	182	...	...	...	...	...	...	...	...
L3T2	...	...	...	...	...	...	...	...	...	2	4	...	...	5	...	11	...	...	...	4	2	4	1	11	...	3	44	63	11	8	37	166	...	...	...	...	1	...	...	1
L1T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	1	1	3	...	...	...	1	...	...	...	1
L3T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	8	8	2	21	44	...	...	1	1	3	3	15	23
	...	28	23	6	...	5	...	62	...	36	17	7	8	11	...	79	...	16	25	30	15	8	2	96	1	23	164	162	35	20	82	487	...	...	3	2	5	3	15	28

Clinics.

Table 9.—Comparative Statement of work carried out at the various Anti-Tuberculosis Clinics during a period of 12 months in 1935.

	Royal Prince Alfred Hospital.	Royal North Shore Hospital.	Anti-Tuberculosis Association of N.S.W.	Newcastle Throat and Chest Dispensary.
1. Total number of attendances (including contacts)	9,563	2,130	8,506	2,074
2. Number of new patients (excluding contacts) examined during the year :—				
(*a*) Definitely tuberculosis	291	76	101	47
(*b*) Non-tuberculosis	73	68	577	96
(*c*) Diagnosis not completed	37	23	14	20
3. Number of contacts examined during the year :—				
(*a*) Definitely tuberculous	244	10	40	3
(*b*) Non-tuberculous	688	199	389	100
(*c*) Diagnosis not completed	31	5	30	41
4. Total number of nurses visits during year	2,584	4,502	1,560	262
5. Number of homes visited	1,592	907	570	52
6. Number of sputum examinations	523	144	*1,257	125
7. Number of X-ray examinations :				
(*a*) New cases	401	173	491	90
(*b*) Cases previously X-rayed at the Clinic	847	206	No record.	67
(*c*) Contacts	963	159	296	100
8. Number of cases on Clinic register at 31st December, 1935	2,869	1,526	1,401	458
9. Number of cases written off during the year as :—				
(*a*) Recovered	No record.	1	No record.	24
(*b*) Died	113	28	43	7
(*c*) Transferred elsewhere	485	109	No record.	20

*Examined at Departmental Laboratory.

Nursing Staff.

TABLE 10.—Comparative Statement of work performed by visiting nurses in the metropolitan area for the years 1931–1935, inclusive.

Year.	Total Visits by Nurses.			Total Visits by Departmental Nurses.		No. of Homes visited by all Nurses.		No. of Visits paid by all Nurses.		Average Number of Visits per Patient per Year.		
	Departmental Nurses.	Non-Departmental Nurses.	Total.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	All Cases.
1930 ...	7,052	4,826	11,878	3,618	3,434	1,780	1,080	8,444	3,434	4·7	3·1	4·1
1931 ...	8,170	5,205	13,375	4,305	3,865	2,046	1,022	9,510	3,865	4·6	3·7	4·4
1932 ...	5,178	5,596	10,774	2,990	2,188	2,497	835	8,647	2,127	3·5	2·4	3·2
1933 ...	7,125	5,212	12,337	4,185	3,519	3,155	1,248	8,818	3,519	2·7	2·8	2·8
1934 ...	6,411	6,070	12,481	3,463	3,163	3,445	1,443	9,789	2,692	2·8	1·8	2·6
1935 ...	5,780	6,316	12,096	2,586	3,194	3,121	1,416	8,902	3,194	2·5	2·2	2·1

Visiting of Patients by Nurses.—In the Metropolitan district this home visiting of patients and contacts is carried out by the four departmental nurses attached to the Division, assisted by four nurses from the Metropolitan dispensaries. In the Hunter River District the work is carried out by a nurse on the staff of the Medical Officer of Health at Newcastle. During the absence of one of the departmental nurses on a study tour abroad, an increased amount of work was thrown on the remainder of the visiting staff. To some extent this was lessened by granting improved travelling facilities, but the increased volume of the work, particularly in connection with the familial investigation now being carried out, renders an increase in the number of visiting nurses an urgent necessity.

Publicity.—Throughout the year an endeavour was made by the staff of the Division to continue and augment the publicity work. New and improved editions of departmental pamphlets were printed, radio broadcasts were given by the medical officer from time to time by courtesy of the Red Cross Society and the Health Week Executive. During Health Week in Sydney, officers of the Division contributed articles and gave addresses and broadcasts, and assisted in arranging shop-window displays and in the exhibition of posters. Articles on tuberculosis have been published in metropolitan and country newspapers in an endeavour to inform the public on various aspects of tuberculosis infection and the care of sufferers.

Need for Additional Anti-Tuberculosis Clinics.—The value of the work of the anti-tuberculosis clinics is so marked that endeavours were made during the year to extend the number of clinics. Unfortunately little progress in this direction can be reported. Hospital authorities were sympathetic, but it would appear that the allocation of special funds to assist in the establishment and maintenance of clinics will be necessary in order to provide the necessary extension of the work. Not only would its extension provide increased facilities for diagnosis and after-care of patients, but by facilitating the domiciliary treatment of patients would to a considerable extent lessen the cost of and the demand for beds in sanatoria.

A survey of the after-histories of patients discharged from various sanatoria in the State was made by the medical officer (Dr. John Hughes) during the year. His report is appended hereto (Appendix A).

Urgent requirements.—Among the more urgent requirements of the campaign against Tuberculosis in New South Wales may be mentioned the following :—

1. Amendment of the Public Health Act to provide for notification of all forms of tuberculosis.
2. Augmentation of the staff of visiting nurses in the metropolitan area.
3. The provision of additional clinics, preferably attached to public hospitals in the Liverpool and Parramatta districts, the outlying northern metropolitan districts, and at Broken Hill.
4. The establishment of a separate institution for male chronic cases in order to relieve the Waterfall Sanatorium of the necessity of accommodating such cases, and so increase its accommodation for early cases with hopeful prospects of cure.
5. Extension of accommodation for female patients at the Prince Henry Hospital Auxiliary at Randwick.
6. Provision of accommodation at a convenient metropolitan centre for patients requiring surgical and other special treatment.

Co-ordination of Anti-Tuberculosis Activities.—The thanks of the Division are due to the members of the Board of Control of the Campaign against Tuberculosis; to the Red Cross Society (New South Wales Division); to the Anti-Tuberculosis Association of New South Wales; and to the Boards of the various hospitals, associations, and other agencies for their active assistance and co-operation throughout the year.

H. G. WALLACE,
Director.

APPENDIX I.

INVESTIGATION INTO THE AFTER-HISTORIES OF 280 PATIENTS ADMITTED TO VARIOUS SANATORIA IN NEW SOUTH WALES IN 1930.

(By Dr. John Hughes, Medical Officer, Tuberculosis Division.)

The 280 patients who have been followed up were admitted to the Queen Victoria Homes (Thirlmere : female patients; and Wentworth Falls : male patients); Bodington Red Cross Home; and the Exeter Red Cross Farm (male patients).

The Queen Victoria Home at Thirlmere endeavours to admit only early stage cases among females; the Queen Victoria Home at Wentworth Falls endeavours to admit only early stage cases among males. Bodington Red Cross Home admits soldiers and civilians, and during the year 1930 admitted 20 female patients. Early and middle stage cases of the disease are admitted. Exeter Red Cross Farm admits only male patients who are in an arrested stage of the disease.

All of the cases under review were admitted in the order shown in the various tables of the respective Sanatoria.

Of the total of 280 patients admitted during 1930, 109 were found to be dead in 1935, *i.e.*, within a period of five years :—

	No. of persons admitted in 1930.	No. of deaths recorded among such admissions 1930 to September, 1935.
Queen Victoria Homes—		
Thirlmere (females)	73	30
Wentworth Falls (male)	60	16
Bodington Red Cross Home	102	45
Exeter Red Cross Farm	45	18
Total	280	109

A. QUEEN VICTORIA HOMES.

A.—QUEEN VICTORIA HOMES.

(Wentworth Falls, Males; Thirlmere, Females.)

	Males.	Females.	Total.
Patients admitted 1930	60	73	133
Died (to September, 1935)	16	30	46
Unable to trace	7	8	15

ANALYSIS of Deaths.

	Males.	Females.	Total.
Died during 1930	1	1	2
Died during 1931	2	12	14
Died during 1932	2	9	11
Died during 1933	9	2	11
Died during 1934	2	1	3
Died during 1935	...	5	5
Total	16	30	46

Of the 52 males and 60 females, whose records were obtainable, the average stay in the Sanatoria were 11 months and 7·65 months respectively.

Of the total 133 admissions (60 males, 73 females) the following sought re-admission—

	Males.	Females.	Total.
Re-admitted to Sanatoria within 6 months of discharge	9	12	21
Re-admitted to Sanatoria within 12 months of discharge	1	6	7
Re-admitted to Sanatoria within 2 years of discharge	3	6	9
Re-admitted to Sanatoria within 3 years of discharge	2	3	5
Re-admitted to Sanatoria within 4 years of discharge	1	2	3
Total	16 or 26·6 per cent.	29 or 39·72 per cent.	45 or 66·32 per cent.

FEMALES (Thirlmere).

Patient's Number.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
1	Not known				
2	Not known	Queen Victoria, 1935			
3	12 months	Queen Victoria	23 months		
4	12 months				
5	3 months	Waterfall	11 months		
6	9 months	Randwick	2 months		8-3-1931
7	10 months	Bodington	3½ years		3-7-1935
8	15 months	Randwick	2 years 10 months		
9	9 months	Queen Victoria	2 years		12-6-1935
10	12 months	Queen Victoria	2 years 9 months		
11	Not known				
12	12 months				
13	9 months	Waterfall	5 months		5-10-1931
14	9 months				6-4-1935
15	4 months	Randwick	14 months		2-12-1931
16	1 month	Randwick	9 months		14-2-1931
17	No record				
18	10 months	Malahide	9 months		
19	11 months				
20	9 months				
21	9 months	Waterfall	Under 1 month		
22	3 months	Randwick	Under 1 month		22-2-1932
23	No record				
24	4 months	Waterfall	Under 1 month		9-12-1932
25	4 months				29-11-1931
26	17 months				
27	11 months				23-10-1932
28	3 months	Waterfall	2½ years		29-4-1933
29	4 months				15-6-1931
30	9 months				12-12-1933
31	9 months	Queen Victoria	1 year 10 months		29-1-1935
2	3 months	Waterfall	2 months		
33	9 months	Waterfall	1 year		5-9-1932
34	9 months				

A.—QUEEN VICTORIA HOMES—*continued.*

Females (Thirlmere)—*continued.*

Patient's Number.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
35	7 months	Waterfall	8 months	...	31–7–1932
36	Not known	...	...	...	13–4–1931
37	11 months	...	...	...	...
38	9 months	...	...	...	...
39	1 month	...	...	...	...
40	10 months	...	...	...	...
41	11 months	...	...	...	...
42	7 months	...	...	...	...
43	1 month	...	...	...	...
44	9 months	Prince Alfred	4 months	...	...
45	No record	...	...	...	...
46	5 months	Randwick	1 year	...	16–12–1932
47	Not known	...	...	...	...
48	No record	...	...	...	...
49	2 months	Randwick	Under 1 month	...	16–6–1931
50	6 months	...	...	...	10–10–1931
51	No record	...	...	...	...
52	5 months	...	...	...	25–11–1931
53	9 months	...	...	...	...
54	9 months	Waterfall	2 years	...	...
55	11 months	Randwick	3½ years	...	...
56	7 months	...	...	...	25–2–1932
57	8 months	Waterfall	2 years	...	25–6–1932
58	5 months	Randwick	Under 1 month	...	13–10–1932
59	1 month	Waterfall	2 months	...	20–2–1935
60	3 months	Randwick	Under 1 month	...	29–10–1931
61	10 months	...	...	...	...
62	1 month	...	...	...	...
63	No record	...	...	...	...
64	No record	...	...	...	...
65	8 months	...	...	...	...
66	No record	...	...	...	...
67	11 months	...	...	...	...
68	3 months	Randwick	Under 1 month	...	3–8–1930
69	10 months	...	...	...	5–6–1931
70	9 months	...	...	...	16–7–1934
71	4 months	...	...	...	...
72	3 months	...	...	...	...
73	22 months	...	...	...	...

Males (Wentworth Falls).

Patient's Number.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
1	33 months	Waterfall	1 week	Positive	4–8–1933
2	8 months	Exeter	1 week	Positive	...
3	4 months	No	...	Positive	...
4	7 months	No	...	Positive	...
5	22 months	Waterfall	5 weeks	Positive	25–6–1933
6	6 months	Randwick	4½ years	Positive	...
7	20 months	...	...	Positive	...
8	15 months	...	...	Nil	...
9	12 months	...	...	Positive	...
10	1 week	Waterfall	1 week	Positive	...
11	19 months	Waterfall	2 weeks	...	26–3–1934
12	12 months	...	...	...	...
13	3 months	...	...	...	6–1–1933
14	13 months	...	...	Positive	...
15	14 months	...	...	Positive	...
16	6 months	...	...	Positive	18–6–1931
17	No record	...	...	...	...
18	7 months	Waterfall	14 months	Positive	22–3–1933
19	20 months	Waterfall	27 months	Positive	28–11–1934
20	17 months	...	...	Positive	...
21	4 months	...	...	...	...
22	17 months	Bodington	4 months	Positive	...
23	5 months	...	...	...	6–11–1930
24	16 months	...	...	Positive	...
25	1 month	...	...	...	...
26	28 months	...	...	...	...
27	No record	...	...	...	...
28	9 months	...	...	Positive	10–3–1933
29	No record	...	...	...	...
30	5 Months	...	...	Nil	...
31	1 month	...	...	Positive	...
32	15 months	...	...	Positive	...
33	5 months	Randwick	3 months	Positive	...
34	9 months	Waterfall	1 month	Positive	...
35	6 months	...	...	Positive	2–9–1933
36	10 months	Waterfall	1 month	Positive	...
37	No record	...	...	...	...
38	No record	...	...	...	...
39	10 months	Bodington	9 months	Positive	...
40	14 months	Queen Victoria	3 years	Positive	...
41	6 months	Randwick	21 months	Positive	6–4–1933
42	1 month	...	...	Positive	...
43	15 months	...	...	Positive	31–10·1933
44	11 months	...	...	Positive	...
45	Not known	...	...	...	7–7–1933

A.—QUEEN VICTORIA HOMES—*continued.*

MALES (Wentworth Falls)—*continued.*

Patients No.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
46	10 months	....	....	Positive......	....
47	16 months	....	....	Positive......	....
48	8 months	....	....	Positive......	27–6–1932
49	15 months	Reported for re-admission	21 months	Positive......	....
50	16 months	Waterfall	14 months	Positive......	....
51	2 months	....	....	Positive......	6–1–1931
52	32 months	....	....	Positive ...	....
53	11 months	....	....	Positive......	....
54	11 months	....	....	....	....
55	7 months	....	....	Positive......	....
56	20 months	....	....	....	....
57	No record	....	....	....	....
58	9 months	This was second admission	....	....	18–10–1932
59	10 months	....	....	Positive......	....
60	No record	....	....	....	....

B.—BODINGTON RED CROSS SANATORIUM.

Patients admitted	102
Deaths	45

ANALYSIS of Deaths.

Died in 1930	4
Died in 1931	15
Died in 1932	11
Died in 1933	5
Died in 1934	8
Died in 1935	2
	45

Numbers 1 to 43 are soldiers	17 died out of 43.
Numbers 44 to 63 are females	11 died out of 20.
Numbers 64 to 102 are civilians	17 died out of 39.

Six transferred to Exeter or Picton Lakes.

Forty-two sought re-admission to Sanatoria—8 within 1 week, 13 in 6 months, 8 in 1 year, 7 in 2 years, 4 in 3 years, 2 in 4 years.

ADMISSIONS During Year 1930.

Patient's No.	Age.	Period in Bodington.	Further Admission to Sanatorium at—	Time between Discharges and Re-admission.	Sputa.	X-Ray.	Died.
1	60	4 months	....	....	Positive...	Cavity left, mottling right.	29–3–1931
2	21	8 months	Malahide	Within 1 week ...	....	....	29–5–1931
3	39	5 months	....	....	....	Bilateral *c* cavities ...	6–7–1931
4	48	3 months	Waterfall	Within 1 week ...	Positive...	Active left upper lobe	....
5	32	5 months	....	....	....	Positive................	....
6	43	1 month	....	....	....	....	....
7	44	2 months	Waterfall	17 months	Positive...	Extensive bilateral *c* cavities.	11–11–1932
8	52	7 months	Bodington	11 months	....	....	....
9	49	4 months	....	....	....	....	10–9–1930
10	38	7 months	Waterfall	1 month	Positive...	....	....
11	45	6 months	Exeter	(Transferred to)..	....	Right apical	....
12	32	No further record	....	....	....	....	....
13	47	13 months	Picton Lakes	(Transferred to)..	Positive...	Mottling right upper lobe.	....
14	54	9 months	Bodington	2 years	Positive...	Advanced *c* cavitation.	....
15	33	8 months	Bodington	2 years	Positive...	Advanced upper half both.	....
16	56	2 months	Waterfall	4 months	Positive...	Marked mottling right and left.	20–12–1933
17	35	6 months	Waterfall	Within 1 week ...	Positive...	Active both	16–5–1932
18	24	7 months	....	....	....	....	12–5–1931
19	42	3 months	....	....	Positive...	Mottling both	....
20	30	5 months	....	....	Positive...	Bilateral fibrosis *c* cavities.	....

B.—BODINGTON RED CROSS SANATORIUM—*continued.*

ADMISSIONS during year 1930—*continued.*

Patient's No.	Age.	Period in Bodington.	Further Admission to Sanatorium at—	Time between Discharges and Re-admission.	Sputa.	X-Ray.	Died.
21	61	3 months	....	....	Positive...	....	....
22	43	3 months	Randwick	3 years	Negative	Both upper lobes......	....
23	37	No further record	....	....	....	....	....
24	34	6 months	....	....	Positive...	Cavitation, left	24-5-1931
25	33	6 months	....	....	Positive...	Positive..................	....
26	30	5 months	....	....	....	Extensive active bilateral.	31-3-1933
27	31	7 months	....	....	Negative	Healed lesion left apex.	....
28	45	9 months	Malahide	2 weeks	Negative	Mottling right apex	....
29	44	....	....	....	....	....	5-1-1933
30	50	4 months	Malahide	Within 1 week ...	Positive...	Right upper lobe ...	....
31	40	3 months	....	....	....	....	....
32	38	1 month	Waterfall	1 year	Positive...	Extensive bilateral	3-11-1932
33	49	5 months	....	....	Negative	Advanced bilateral ...	11-10-1932
34	35	4 months	Randwick	Within 1 week ...	Positive...	Cavitation right	6-3-1932
35	46	7 months	Bodington	1 month	Positive...	Mottling cavitation both.	....
36	40	1 month	....	....	Positive...	Bilateral fibrosis	....
37	34	3 months	....	....	Positive...	Partial right pneumothorax.	....
38	39	4 months	Bodington	2½ years	Positive...	Old *c* cavitation right	18-7-1934
39	35	5 months	....	....	Positive...	Right sub apical	....
40	39	4 months	Exeter	(Transferred to)..	Positive...	Chronic both *c* cavities.	....
41	49	2 months	Waterfall	5 months	Positive...	Fibrosis both apices	19-4-1932
42	34	2 months	Waterfall	3 months	Positive...	Bilateral	29-12-1931
43	40	1 month	Bodington	2 months	Positive...	Extensive left upper lobe.	....
44	22	4 months	....	....	....	Right sub-clavian area.	10-7-1931
45	24	3 months	Waterfall	9 months	Positive...	Early right	21-10-1933
46	38	6 months	Randwick	18 months	Positive...	....	19-3-1935
47	36	5 months	....	....	Positive...	Mottling both	....
48	17	6 months	....	....	....	Cavitation left	....
49	21	4 months	....	....	....	....	4-10-1931
50	27	4 months	....	....	Positive...	No active T.B..........	....
51	29	4 months	....	....	Positive...	Positive..................	18-11-1932
52	35	6 months	Queen Victoria	4 months	Negative	Left apical	....
53	22	2 months	Thirlmere	9 months	Positive...	Chronic bilateral ...	....
54	25	1 month	....	....	Positive...	Positive..................	14-6-1934
55	30	5 months	....	....	....	Extensive bilateral ...	27-1-1931
56	33	3 months	Randwick	3½ years	Positive...	Chronic left, active right.	18-9-1934
57	...	No further record	....	....	....	No active disease ...	....
58	30	3 months	....	....	Positive...	Extensive mottling upper half both.	....
59	25	3 months	Thirlmere	1 month	Positive...	Extensive bilateral *c* cavities.	31-1-1932
60	45	6 months	....	....	....	....	....
61	25	4 months	....	....	....	....	17-7-1931
62	30	2 months	Waterfall	1 year	Positive...	....	8-6-1932
63	31	....	....	....	....	....	....
64	43	3 months	....	....	Positive...	Extensive right *c* cavitation.	....
65	19	3 months	Waterfall	3 months	Positive...	Extensive active ...	13-10-1930
66	24	5 months	Waterfall	10 months	Positive...	Cavitation both lungs	16-4-1931
67	...	5 months	....	....	....	....	....
68	25	2 months	Waterfall	4 months	....	Active bilateral	21-8-1934
69	20	13 months	Randwick	Within 1 week ...	Positive...	....	19-6-1932
70	32	2 months	....	....	....	Exudative both upper lobes.	27-12-1930
71	62	4 months	Waterfall	Within 1 week ...	Positive...	Extensive bilateral ...	23-8-1934
72	24	5 months	Exeter	(Transferred to)..	....	Active both upper lobes.	....
73	56	2 months	....	....	....	Advanced silicosis *c* T.B.	27-10-1931
74	27	6 months	Waterfall	2½ years	Positive...	Apical mottling *c* cavity left.	20-7-1934
75	49	19 months	....	....	Positive...	Mottling both	....
76	20	1 month	....	....	Negative	Advanced left	....
77	27	2½ years	Exeter	(Transferred to)..	....	Bilateral cavitation...	....
78	25	8 months	....	....	Positive...	Mottling right upper lobe.	11-3-1935
79	22	8 months	....	....	....	Haziness right apex	....
80	30	8 months	....	....	....	....	....
81	16	14 months	....	....	Positive...	Mottling upper half left.	....
82	21	12 months	....	....	Positive...	Advanced bilateral ...	21-10-1931
83	32	3 months	Queen Victoria	1 month	Positive...	Extensive right	12-2-1932
84	22	11 months	....	....	Negative	Active left	....
85	27	7 months	Randwick	11 months	Positive...	Fibrosis both apices	....
86	29	3 months	Randwick	2 years	Positive...	Positive..................	4-7-1933
87	28	8 months	....	....	Positive...	Markings upper half both.	....

B.—BODINGTON RED CROSS SANATORIUM—*continued.*

ADMISSIONS During 1930.—*continued.*

Patients No.	Age.	Period in Bodington.	Further Admission to Sanatorium at.	Time between Discharge and Re-admission.	Sputa.	X-Ray.	Died.
88	33	4 months	....	....	Positive...	....	....
89	27	4 months	Waterfall	18 months	Positive...	Mottling upper half both.	....
90	19	12 months	....	....	Positive...	Each apex	26–8–1934
91	33	10 months	Bodington	4 months	Positive...	Chronic apices, recent lower lobes.	....
92	40	13 months	....	....	Positive...	Cavitation left upper lobe.	3–9–1931
93	21	12 months	....	....	....	Bilateral	....
94	34	18 months	Exeter	(Transferred to)..	Negative	Mottling both	....
95	18	3 months	Waterfall	3 years	Positive...	Both upper lobes c̄ cavity.	9–8–1934
96	28	6 months	....	....	Positive...	Upper half both c̄ cavity.	....
97	22	2 months	Randwick	Within 1 week...	Positive...	....	5–2–1931
98	...	3 months	Waterfall	2 years	Positive...	Bilateral cavitation...	....
99	33	1 month	....	....	Positive...	Left upper and right mid lobes.	26–12–1930
100	41	8 months	....	....	Positive...	....	....
101	28	9 months	Bodington	4 years	Positive...	Fibrosis both upper lobes.	....
102	41	8 months	Bodington	9 months	Positive...	....	....

C.—EXETER RED CROSS FARM.

Admissions during 1930	45
Died up to September, 1935	18

ANALYSIS of Deaths.

Died in 1930	1
Died in 1931	3
Died in 1932	5
Died in 1933	3
Died in 1934	4
Died in 1935	2
	18

Thirty men or 66 per cent. sought re-admissions to Sanatoria within 5 years.

ADMISSIONS during 1930.

Patient's No.	Age.	Sent from—	Period in Exeter.	Further Admission to Sanatorium at—	Time between Discharge from Exeter and Re-admission.	Sputa.	Died.
1	17	....	4 months	....	....	....	....
2	44	Waterfall	6 months	Waterfall	1 week	....	13–7–1931
3	29	Waterfall	7 months	....	....	Positive...	....
4	21	Waterfall	5 months	Bodington	6 months	Positive...	25–5–1933
5	42	Waterfall	8 months	Randwick	Within 1 week...	Positive...	1–6–1932
6	25	Waterfall	5 months	Waterfall	Within 1 week...	Positive...	28–12–1930
7	44	Waterfall	3 months	....	....	....	16–10–1931
8	24	Bodington	5 months	....	....	....	....
9	32	....	7 months	Waterfall	3 weeks	Positive...	....
10	51	Bodington	21 months	....	....	....	....
11	27	Waterfall	3 months	Waterfall	1 month	Positive...	....
12	41	Waterfall	1 month	Waterfall	1 month	Positive...	10–2–1934
13	48	Waterfall	19 months	Waterfall	12 months	Positive...	14–5–1933
14	38	Waterfall	2 months	Waterfall	Within 1 week...	Positive...	26–6–1935
15	...	No records available	....	....	....	....	....
16	26	....	9 months	....	....	Positive...	....
17	42	Waterfall	6 months	Waterfall	2 weeks	Negative	....
18	29	Waterfall	3 months	Waterfall	Within 1 week...	Positive...	....
19	14	Waterfall	2 months	....	....	....	....
20	26	Waterfall	4 months	Waterfall	2½ years	Positive...	....
21	30	Waterfall	2 months	Waterfall	1 month	Positive...	1–3–1931
22	36	Bodington	9 months	Randwick	Within 1 week...	Positive...	....
23	50	Waterfall	17 months	Bodington	2½ years	....	....
24	53	Waterfall	6 months	Bodington	1½ years	Positive...	7–7–1933
25	27	Waterfall	13 months	Waterfall	2 months	Positive...	....
26	...	Waterfall	3 months	Exeter	5 months	Positive...	....
27	28	Waterfall	1 month	Waterfall	Within 1 week...	Positive...	30–1–1934
28	41	Waterfall	1 month	Waterfall	Within 1 week...	Positive...	1–8–1934
29	44	Waterfall	1 month	Waterfall	2 months	Positive...	23–9–1932
30	40	Waterfall	3 months	Waterfall	7 months	....	....

TABLE 6.—Showing number of patients receiving Institutional treatment during 1935.

	Queen Victoria Sanatorium, Wentworth Falls.	Queen Victoria Sanatorium, Thirlmere.	Red Cross Sanatorium, Wentworth Falls.	Waterfall Sanatorium.	Red Cross Hospital, Pennant Hills.	Coast Auxiliary Hospital, Randwick.	Red Cross Convalescent Home, Exeter.
1. Number of patients in Institution on 1st Jan., 1935...	43	49	71	338	19	No record	19
2. Number of patients admitted during 1935	70	77	95	535	30	kept.	20
3. Number of patients discharged (including deaths) during 1935	62	79	96	487	28	,,	29
4. Number of patients remaining in Institution on 31st December, 1935	51	47	70	386	21	,,	10
5. Average daily number of beds occupied	46·14	49·86	67	384·72	20·48	,,	11·47

Average Residence in Sanatoria and Hospitals.

TABLE 7.—Showing the average residence in days and condition on discharge from Sanatoria and Hospitals of patients under treatment during 1935.

Condition on Discharge.	Queen Victoria Sanatorium, Wentworth Falls.		Queen Victoria Sanatorium, Thirlmere.		Red Cross Sanatorium, Wentworth Falls.		Waterfall Sanatorium.		Red Cross Hospital, Pennant Hills.		Red Cross Convalescent Home, Exeter.	
	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.
1. Arrested (A.)	...	...	...	...	...	...	1	2,141	...	...	...	...
2. Quiescent (Q.)	28	203·79	36	235·52	16	341	23	456	...	...	...	...
3. Much Improved (M.I.) ...	23	234·81	17	277·23	25	276	164	238	3	210	...	...
4. Improved (I.)	6	148	7	248·86	30	237	162	136	2	118	31	121·32
5. Stationary (S.)	...	...	8	99·12	15	86	35	222	5	82	4	36·33
6. Worse (W.)	5	277·8	11	126·63	8	257	20	393	3	37	3	97·6
7. Dead (D.)	...	...	...	...	2	601	82	456	15	73	...	...
Total	62	215·86	79	216·72	96	250·14	487	254	28	520	38	113·0

TABLE 8.—Showing condition of patients on admission to, and discharge from, Institutions for the treatment of Pulmonary Tuberculosis during 1935.

Condition on Admission.	Queen Victoria Sanatorium, Wentworth Falls.								Queen Victoria Sanatorium, Thirlmere.								Red Cross Sanatorium, Wentworth Falls.								Waterfall Sanatorium.								Red Cross Hospital, Pennant Hills.							
	Condition on Discharge.								Condition on Discharge.								Condition on Discharge.								Condition on Discharge.								Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	5	...	...	...	...	...	5	...	18	2	2	2	...	...	24	...	6	9	5	5	...	...	25	...	4	7	1	...	...	...	12	...	...	...	...	...	...	...	...
L2T1	...	20	16	1	...	3	...	40	...	8	2	1	...	4	...	15	...	10	14	13	6	3	1	47	...	3	25	23	5	...	4	60	...	...	...	...	...	...	...	...
L1T2	...	...	...	...	...	...	...	...	...	5	...	...	1	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
L2T2	...	3	6	5	...	2	...	16	...	2	5	3	2	1	...	13	...	...	...	...	...	...	...	...	1	3	10	5	...	1	...	20	...	...	2	...	1	...	...	3
L3T1	...	...	1	...	...	...	...	1	...	1	4	1	3	...	...	9	...	...	2	7	2	1	...	12	...	10	73	61	11	8	19	182	...	...	...	...	...	...	...	...
L3T2	...	...	...	...	...	...	...	...	...	2	4	...	...	5	...	11	...	...	...	4	2	4	1	11	...	3	44	63	11	8	37	166	...	...	...	...	1	...	...	1
L1T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	1	1	3	...	...	...	1	...	...	...	1
L3T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	8	8	2	21	44	...	...	1	1	3	3	15	23
	...	28	23	6	...	5	...	62	...	36	17	7	8	11	...	79	...	16	25	30	15	8	2	96	1	23	164	162	35	20	82	487	...	...	3	2	5	3	15	28

Clinics.

TABLE 9.—Comparative Statement of work carried out at the various Anti-Tuberculosis Clinics during a period of 12 months in 1935.

	Royal Prince Alfred Hospital.	Royal North Shore Hospital.	Anti-Tuberculosis Association of N.S.W.	Newcastle Throat and Chest Dispensary.
1. Total number of attendances (including contacts)	9,563	2,130	8,506	2,074
2. Number of new patients (excluding contacts) examined during the year :—				
(*a*) Definitely tuberculosis	291	76	101	47
(*b*) Non-tuberculosis	73	68	577	96
(*c*) Diagnosis not completed	37	23	14	20
3. Number of contacts examined during the year :—				
(*a*) Definitely tuberculous	244	10	40	3
(*b*) Non-tuberculous	688	199	389	100
(*c*) Diagnosis not completed	31	5	30	41
4. Total number of nurses visits during year	2,584	4,502	1,560	262
5. Number of homes visited	1,592	907	570	52
6. Number of sputum examinations	523	144	*1,257	125
7. Number of X-ray examinations :				
(*a*) New cases	401	173	491	90
(*b*) Cases previously X-rayed at the Clinic	847	206	No record.	67
(*c*) Contacts	963	159	296	100
8. Number of cases on Clinic register at 31st December, 1935	2,869	1,526	1,401	458
9. Number of cases written off during the year as :—				
(*a*) Recovered...	No record.	1	No record.	24
(*b*) Died	113	28	43	7
(*c*) Transferred elsewhere	485	109	No record.	20

*Examined at Departmental Laboratory.

Nursing Staff.

TABLE 10.—Comparative Statement of work performed by visiting nurses in the metropolitan area for the years 1931–1935, inclusive.

Year.	Total Visits by Nurses.			Total Visits by Departmental Nurses.		No. of Homes visited by all Nurses.		No. of Visits paid by all Nurses.		Average Number of Visits per Patient per Year.		
	Departmental Nurses.	Non-Departmental Nurses.	Total.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	Dispensary Cases.	Non-Dispensary Cases.	All Cases.
1930 ...	7,052	4,826	11,878	3,618	3,434	1,780	1,080	8,444	3,434	4·7	3·1	4·1
1931 ...	8,170	5,205	13,375	4,305	3,865	2,046	1,022	9,510	3,865	4·6	3·7	4·4
1932 ...	5,178	5,596	10,774	2,990	2,188	2,497	835	8,647	2,127	3·5	2·4	3·2
1933 ...	7,125	5,212	12,337	4,185	3,519	3,155	1,248	8,818	3,519	2·7	2·8	2·8
1934 ...	6,411	6,070	12,481	3,463	3,163	3,445	1,443	9,789	2,692	2·8	1·8	2·6
1935 ...	5,780	6,316	12,096	2,586	3,194	3,121	1,416	8,902	3,194	2·5	2·2	2·1

Visiting of Patients by Nurses.—In the Metropolitan district this home visiting of patients and contacts is carried out by the four departmental nurses attached to the Division, assisted by four nurses from the Metropolitan dispensaries. In the Hunter River District the work is carried out by a nurse on the staff of the Medical Officer of Health at Newcastle. During the absence of one of the departmental nurses on a study tour abroad, an increased amount of work was thrown on the remainder of the visiting staff. To some extent this was lessened by granting improved travelling facilities, but the increased volume of the work, particularly in connection with the familial investigation now being carried out, renders an increase in the number of visiting nurses an urgent necessity.

Publicity.—Throughout the year an endeavour was made by the staff of the Division to continue and augment the publicity work. New and improved editions of departmental pamphlets were printed, radio broadcasts were given by the medical officer from time to time by courtesy of the Red Cross Society and the Health Week Executive. During Health Week in Sydney, officers of the Division contributed articles and gave addresses and broadcasts, and assisted in arranging shop-window displays and in the exhibition of posters. Articles on tuberculosis have been published in metropolitan and country newspapers in an endeavour to inform the public on various aspects of tuberculosis infection and the care of sufferers.

Need for Additional Anti-Tuberculosis Clinics.—The value of the work of the anti-tuberculosis clinics is so marked that endeavours were made during the year to extend the number of clinics. Unfortunately little progress in this direction can be reported. Hospital authorities were sympathetic, but it would appear that the allocation of special funds to assist in the establishment and maintenance of clinics will be necessary in order to provide the necessary extension of the work. Not only would its extension provide increased facilities for diagnosis and after-care of patients, but by facilitating the domiciliary treatment of patients would to a considerable extent lessen the cost of and the demand for beds in sanatoria.

A survey of the after-histories of patients discharged from various sanatoria in the State was made by the medical officer (Dr. John Hughes) during the year. His report is appended hereto (Appendix A).

Urgent requirements.—Among the more urgent requirements of the campaign against Tuberculosis in New South Wales may be mentioned the following :—

1. Amendment of the Public Health Act to provide for notification of all forms of tuberculosis.
2. Augmentation of the staff of visiting nurses in the metropolitan area.
3. The provision of additional clinics, preferably attached to public hospitals in the Liverpool and Parramatta districts, the outlying northern metropolitan districts, and at Broken Hill.
4. The establishment of a separate institution for male chronic cases in order to relieve the Waterfall Sanatorium of the necessity of accommodating such cases, and so increase its accommodation for early cases with hopeful prospects of cure.
5. Extension of accommodation for female patients at the Prince Henry Hospital Auxiliary at Randwick.
6. Provision of accommodation at a convenient metropolitan centre for patients requiring surgical and other special treatment.

Co-ordination of Anti-Tuberculosis Activities.—The thanks of the Division are due to the members of the Board of Control of the Campaign against Tuberculosis ; to the Red Cross Society (New South Wales Division) ; to the Anti-Tuberculosis Association of New South Wales ; and to the Boards of the various hospitals, associations, and other agencies for their active assistance and co-operation throughout the year.

H. G. WALLACE,
Director.

APPENDIX I.

INVESTIGATION INTO THE AFTER-HISTORIES OF 280 PATIENTS ADMITTED TO VARIOUS SANATORIA IN NEW SOUTH WALES IN 1930.

(By Dr. John Hughes, Medical Officer, Tuberculosis Division.)

The 280 patients who have been followed up were admitted to the Queen Victoria Homes (Thirlmere : female patients ; and Wentworth Falls : male patients); Bodington Red Cross Home; and the Exeter Red Cross Farm (male patients).

The Queen Victoria Home at Thirlmere endeavours to admit only early stage cases among females ; the Queen Victoria Home at Wentworth Falls endeavours to admit only early stage cases among males. Bodington Red Cross Home admits soldiers and civilians, and during the year 1930 admitted 20 female patients. Early and middle stage cases of the disease are admitted. Exeter Red Cross Farm admits only male patients who are in an arrested stage of the disease.

All of the cases under review were admitted in the order shown in the various tables of the respective Sanatoria.

Of the total of 280 patients admitted during 1930, 109 were found to be dead in 1935, *i.e.*, within a period of five years :—

	No. of persons admitted in 1930.	No. of deaths recorded among such admissions 1930 to September, 1935.
Queen Victoria Homes—		
Thirlmere (females)	73	30
Wentworth Falls (male)	60	16
Bodington Red Cross Home	102	45
Exeter Red Cross Farm	45	18
Total	280	109

A. QUEEN VICTORIA HOMES.

A.—QUEEN VICTORIA HOMES.

(Wentworth Falls, Males; Thirlmere, Females.)

	Males.	Females.	Total.
Patients admitted 1930	60	73	133
Died (to September, 1935)	16	30	46
Unable to trace	7	8	15

Analysis of Deaths.

	Males.	Females.	Total.
Died during 1930	1	1	2
Died during 1931	2	12	14
Died during 1932	2	9	11
Died during 1933	9	2	11
Died during 1934	2	1	3
Died during 1935	...	5	5
Total	16	30	46

Of the 52 males and 60 females, whose records were obtainable, the average stay in the Sanatoria were 11 months and 7·65 months respectively.

Of the total 133 admissions (60 males, 73 females) the following sought re-admission—

	Males.	Females.	Total.
Re-admitted to Sanatoria within 6 months of discharge	9	12	21
Re-admitted to Sanatoria within 12 months of discharge	1	6	7
Re-admitted to Sanatoria within 2 years of discharge	3	6	9
Re-admitted to Sanatoria within 3 years of discharge	2	3	5
Re-admitted to Sanatoria within 4 years of discharge	1	2	3
Total	16 or 26·6 per cent.	29 or 39·72 per cent.	45 or 66·32 per cent.

Females (Thirlmere).

Patient's Number.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
1	Not known	...	...	...	...
2	Not known	Queen Victoria. 1935	...	...	...
3	12 months	Queen Victoria	23 months	...	...
4	12 months	...	...	...	...
5	3 months	Waterfall	11 months	...	...
6	9 months	Randwick	2 months	...	8–3–1931
7	10 months	Bodington	3½ years	...	3–7–1935
8	15 months	Randwick	2 years 10 months	...	...
9	9 months	Queen Victoria	2 years	...	12–6–1935
10	12 months	Queen Victoria	2 years 9 months	...	...
11	Not known	...	...	...	...
12	12 months	...	...	...	...
13	9 months	Waterfall	5 months	...	5–10–1931
14	9 months	...	...	...	6–4–1935
15	4 months	Randwick	14 months	...	2–12–1931
16	1 month	Randwick	9 months	...	14–2–1931
17	No record	...	...	...	...
18	10 months	Malahide	9 months	...	...
19	11 months	...	...	...	...
20	9 months	...	...	...	...
21	9 months	Waterfall	Under 1 month	...	...
22	3 months	Randwick	Under 1 month	...	22–2–1932
23	No record	...	...	...	...
24	4 months	Waterfall	Under 1 month	...	9–12–1932
25	4 months	...	...	...	29–11–1931
26	17 months	...	...	...	...
27	11 months	...	...	...	23–10–1932
28	3 months	Waterfall	2½ years	...	29–4–1933
29	4 months	...	...	...	15–6–1931
30	9 months	...	...	...	12–12–1933
31	9 months	Queen Victoria	1 year 10 months	...	29–1–1935
2	3 months	Waterfall	2 months	...	...
33	9 months	Waterfall	1 year	...	5–9–1932
34	9 months	...	...	...	...

A.—QUEEN VICTORIA HOMES—*continued.*

Patient's Number.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
		FEMALES (Thirlmere)—*continued.*			
35	7 months	Waterfall	8 months		31–7–1932
36	Not known				13–4–1931
37	11 months				
38	9 months				
39	1 month				
40	10 months				
41	11 months				
42	7 months				
43	1 month				
44	9 months	Prince Alfred	4 months		
45	No record				
46	5 months	Randwick	1 year		16–12–1932
47	Not known				
48	No record				
49	2 months	Randwick	Under 1 month		16–6–1931
50	6 months				10–10–1931
51	No record				
52	5 months				25–11–1931
53	9 months				
54	9 months	Waterfall	2 years		
55	11 months	Randwick	3½ years		
56	7 months				25–2–1932
57	8 months	Waterfall	2 years		25–6–1932
58	5 months	Randwick	Under 1 month		13–10–1932
59	1 month	Waterfall	2 months		20–2–1935
60	3 months	Randwick	Under 1 month		29–10–1931
61	10 months				
62	1 month				
63	No record				
64	No record				
65	8 months				
66	No record				
67	11 months				
68	3 months	Randwick	Under 1 month		3–8–1930
69	10 months				5–6–1931
70	9 months				16–7–1934
71	4 months				
72	3 months				
73	22 months				
		MALES (Wentworth Falls).			
1	33 months	Waterfall	1 week	Positive	4–8–1933
2	8 months	Exeter	1 week	Positive	
3	4 months	No		Positive	
4	7 months	No		Positive	
5	22 months	Waterfall	5 weeks	Positive	25–6–1933
6	6 months	Randwick	4½ years	Positive	
7	20 months			Positive	
8	15 months			Nil	
9	12 months			Positive	
10	1 week	Waterfall	1 week	Positive	
11	19 months	Waterfall	2 weeks		26–3–1934
12	12 months				
13	3 months				6–1–1933
14	13 months			Positive	
15	14 months			Positive	
16	6 months			Positive	18–6–1931
17	No record				
18	7 months	Waterfall	14 months	Positive	22–3–1933
19	20 months	Waterfall	27 months	Positive	28–11–1934
20	17 months			Positive	
21	4 months				
22	17 months	Bodington	4 months	Positive	
23	5 months				6–11–1930
24	16 months			Positive	
25	1 month				
26	28 months				
27	No record				
28	9 months			Positive	10–3–1933
29	No record				
30	5 Months			Nil	
31	1 month			Positive	
32	15 months			Positive	
33	5 months	Randwick	3 months	Positive	
34	9 months	Waterfall	1 month	Positive	
35	6 months			Positive	2–9–1933
36	10 months	Waterfall	1 month	Positive	
37	No record				
38	No record				
39	10 months	Bodington	9 months	Positive	
40	14 months	Queen Victoria	3 years	Positive	
41	6 months	Randwick	21 months	Positive	6–4–1933
42	1 month			Positive	
43	15 months			Positive	31–10–1933
44	11 months			Positive	
45	Not known				7–7–1933

A.—QUEEN VICTORIA HOMES—*continued.*

MALES (Wentworth Falls)—*continued.*

Patients No.	Length of Stay.	Re-admitted to Sanatorium.	Time of Re-admission after Discharge.	Sputum.	Died.
46	10 months	....	....	Positive......	....
47	16 months	....	....	Positive......	....
48	8 months	....	....	Positive......	27–6–1932
49	15 months	Reported for re-admission	21 months	Positive......	....
50	16 months	Waterfall	14 months	Positive......	....
51	2 months	....	....	Positive......	6–1–1931
52	32 months	....	....	Positive ...	....
53	11 months	....	....	Positive......	....
54	11 months	....	....	....	....
55	7 months	....	....	Positive......	....
56	20 months	....	....	....	....
57	No record	....	....	....	....
58	9 months	This was second admission	....	....	18–10–1932
59	10 months	....	....	Positive......	....
60	No record	....	....	....	....

B.—BODINGTON RED CROSS SANATORIUM.

Patients admitted	102
Deaths	45

ANALYSIS of Deaths.

Died in 1930	4
Died in 1931	15
Died in 1932	11
Died in 1933	5
Died in 1934	8
Died in 1935	2
	45

Numbers 1 to 43 are soldiers	17 died out of 43.
Numbers 44 to 63 are females	11 died out of 20.
Numbers 64 to 102 are civilians	17 died out of 39.

Six transferred to Exeter or Picton Lakes.

Forty-two sought re-admission to Sanatoria—8 within 1 week, 13 in 6 months, 8 in 1 year, 7 in 2 years, 4 in 3 years, 2 in 4 years.

ADMISSIONS During Year 1930.

Patient's No.	Age.	Period in Bodington.	Further Admission to Sanatorium at—	Time between Discharges and Re-admission.	Sputa.	X-Ray.	Died.
1	60	4 months	....	....	Positive...	Cavity left, mottling right.	29–3–1931
2	21	8 months	Malahide	Within 1 week ...	....	....	29–5–1931
3	39	5 months	....	....	....	Bilateral *c* cavities ...	6–7–1931
4	48	3 months	Waterfall	Within 1 week ...	Positive...	Active left upper lobe	....
5	32	5 months	....	....	....	Positive..................	....
6	43	1 month	....	....	....	....	....
7	44	2 months	Waterfall	17 months	Positive...	Extensive bilateral *c* cavities.	11–11–1932
8	52	7 months	Bodington	11 months	....	....	....
9	49	4 months	....	....	....	....	10–9–1930
10	38	7 months	Waterfall	1 month	Positive...	....	....
11	45	6 months	Exeter	(Transferred to)..	....	Right apical	....
12	32	No further record	....	....	....	....	....
13	47	13 months	Picton Lakes	(Transferred to)..	Positive...	Mottling right upper lobe.	....
14	54	9 months	Bodington	2 years	Positive...	Advanced *c* cavitation.	....
15	33	8 months	Bodington	2 years	Positive...	Advanced upper half both.	....
16	56	2 months	Waterfall	4 months	Positive...	Marked mottling right and left.	20–12–1933
17	35	6 months	Waterfall	Within 1 week ...	Positive...	Active both	16–5–1932
18	24	7 months	....	....	....	....	12–5–1931
19	42	3 months	....	....	Positive...	Mottling both	....
20	30	5 months	....	....	Positive...	Bilateral fibrosis *c* cavities.	....

B.—BODINGTON RED CROSS SANATORIUM—*continued.*

ADMISSIONS during year 1930—*continued.*

Patient's No.	Age.	Period in Bodington.	Further Admission to Sanatorium at—	Time between Discharges and Re-admission.	Sputa.	X-Ray.	Died.
21	61	3 months	....	....	Positive...	....	....
22	43	3 months	Randwick	3 years	Negative	Both upper lobes......	....
23	37	No further record	....	....	....	....	....
24	34	6 months	....	....	Positive...	Cavitation, left	24-5-1931
25	33	6 months	....	....	Positive...	Positive.................	....
26	30	5 months	....	....	....	Extensive active bilateral.	31-3-1933
27	31	7 months	....	....	Negative	Healed lesion left apex.	....
28	45	9 months	Malahide	2 weeks	Negative	Mottling right apex	....
29	44	....	....	....	....	....	5-1-1933
30	50	4 months	Malahide	Within 1 week...	Positive...	Right upper lobe ...	....
31	40	3 months	....	....	....	....	....
32	38	1 month	Waterfall	1 year	Positive...	Extensive bilateral	3-11-1932
33	49	5 months	....	....	Negative	Advanced bilateral ...	11-10-1932
34	35	4 months	Randwick	Within 1 week...	Positive...	Cavitation right	6-3-1932
35	46	7 months	Bodington	1 month	Positive...	Mottling cavitation both.	....
36	40	1 month	....	....	Positive...	Bilateral fibrosis	....
37	34	3 months	....	....	Positive...	Partial right pneumothorax.	....
38	39	4 months	Bodington	2½ years	Positive...	Old *c* cavitation right	18-7-1934
39	35	5 months	....	....	Positive...	Right sub apical	....
40	39	4 months	Exeter	(Transferred to)..	Positive...	Chronic both *c* cavities.	....
41	49	2 months	Waterfall	5 months	Positive...	Fibrosis both apices	19-4-1932
42	34	2 months	Waterfall	3 months	Positive...	Bilateral	29-12-1931
43	40	1 month	Bodington	2 months	Positive...	Extensive left upper lobe.	....
44	22	4 months	....	....	....	Right sub-clavian area.	10-7-1931
45	24	3 months	Waterfall	9 months	Positive...	Early right	21-10-1933
46	38	6 months	Randwick	18 months	Positive...	....	19-3-1935
47	36	5 months	....	....	Positive...	Mottling both	....
48	17	6 months	....	....	....	Cavitation left	....
49	21	4 months	....	....	....	....	4-10-1931
50	27	4 months	....	....	Positive...	No active T.B..........	....
51	29	4 months	....	....	Positive...	Positive.................	18-11-1932
52	35	6 months	Queen Victoria	4 months	Negative	Left apical	....
53	22	2 months	Thirlmere	9 months	Positive...	Chronic bilateral ...	....
54	25	1 month	....	....	Positive...	Positive.................	14-6-1934
55	30	5 months	....	....	....	Extensive bilateral ...	27-1-1931
56	33	3 months	Randwick	3½ years	Positive...	Chronic left, active right.	18-9-1934
57	...	No further record	....	....	....	No active disease ...	....
58	30	3 months	....	....	Positive...	Extensive mottling upper half both.	....
59	25	3 months	Thirlmere	1 month	Positive...	Extensive bilateral *c* cavities.	31-1-1932
60	45	6 months	....	....	....	....	....
61	25	4 months	....	....	....	....	17-7-1931
62	30	2 months	Waterfall	1 year	Positive...	....	8-6-1932
63	31	....	....	....	....	....	....
64	43	3 months	....	....	Positive...	Extensive right *c* cavitation.	....
65	19	3 months	Waterfall	3 months	Positive...	Extensive active ...	13-10-1930
66	24	5 months	Waterfall	10 months	Positive...	Cavitation both lungs	16-4-1931
67	...	5 months	....	....	....	....	....
68	25	2 months	Waterfall	4 months	....	Active bilateral	21-8-1934
69	20	13 months	Randwick	Within 1 week...	Positive...	....	19-6-1932
70	32	2 months	....	....	....	Exudative both upper lobes.	27-12-1930
71	62	4 months	Waterfall	Within 1 week...	Positive...	Extensive bilateral ...	23-8-1934
72	24	5 months	Exeter	(Transferred to)..	....	Active both upper lobes.	....
73	56	2 months	....	....	....	Advanced silicosis *c* T.B.	27-10-1931
74	27	6 months	Waterfall	2½ years	Positive...	Apical mottling *c* cavity left.	20-7-1934
75	49	19 months	....	....	Positive...	Mottling both	....
76	20	1 month	....	....	Negative	Advanced left	....
77	27	2½ years	Exeter	(Transferred to)..	....	Bilateral cavitation...	....
78	25	8 months	....	....	Positive...	Mottling right upper lobe.	11-3-1935
79	22	8 months	....	....	....	Haziness right apex	....
80	30	8 months	....	....	....	....	....
81	16	14 months	....	....	Positive...	Mottling upper half left.	....
82	21	12 months	....	....	Positive...	Advanced bilateral ...	21-10-1931
83	32	3 months	Queen Victoria	1 month	Positive...	Extensive right	12-2-1932
84	22	11 months	....	....	Negative	Active left	....
85	27	7 months	Randwick	11 months	Positive...	Fibrosis both apices	....
86	29	3 months	Randwick	2 years	Positive...	Positive.................	4-7-1933
87	28	8 months	....	....	Positive...	Markings upper half both.	....

B.—BODINGTON RED CROSS SANATORIUM—*continued.*

Admissions During 1930.—*continued.*

Patients No.	Age.	Period in Bodington.	Further Admission to Sanatorium at.	Time between Discharge and Re-admission.	Sputa.	X-Ray.	Died.
88	33	4 months	....	....	Positive	....	....
89	27	4 months	Waterfall	18 months	Positive	Mottling upper half both.	....
90	19	12 months	....	....	Positive	Each apex	26-8-1934
91	33	10 months	Bodington	4 months	Positive	Chronic apices, recent lower lobes.	....
92	40	13 months	....	....	Positive	Cavitation left upper lobe.	3-9-1931
93	21	12 months	....	....	....	Bilateral	....
94	34	18 months	Exeter	(Transferred to)	Negative	Mottling both	....
95	18	3 months	Waterfall	3 years	Positive	Both upper lobes c cavity.	9-8-1934
96	28	6 months	....	....	Positive	Upper half both c cavity.	....
97	22	2 months	Randwick	Within 1 week	Positive	....	5-2-1931
98	...	3 months	Waterfall	2 years	Positive	Bilateral cavitation	....
99	33	1 month	....	....	Positive	Left upper and right mid lobes.	26-12-1930
100	41	8 months	....	....	Positive	....	....
101	28	9 months	Bodington	4 years	Positive	Fibrosis both upper lobes.	....
102	41	8 months	Bodington	9 months	Positive	....	....

C.—EXETER RED CROSS FARM.

Admissions during 1930	45
Died up to September, 1935	18

Analysis of Deaths.

Died in 1930	1
Died in 1931	3
Died in 1932	5
Died in 1933	3
Died in 1934	4
Died in 1935	2
	18

Thirty men or 66 per cent. sought re-admissions to Sanatoria within 5 years.

Admissions during 1930.

Patient's No.	Age.	Sent from—	Period in Exeter.	Further Admission to Sanatorium at—	Time between Discharge from Exeter and Re-admission.	Sputa.	Died.
1	17	....	4 months	....	....	....	....
2	44	Waterfall	6 months	Waterfall	1 week	....	13-7-1931
3	29	Waterfall	7 months	....	....	Positive	....
4	21	Waterfall	5 months	Bodington	6 months	Positive	25-5-1933
5	42	Waterfall	8 months	Randwick	Within 1 week	Positive	1-6-1932
6	25	Waterfall	5 months	Waterfall	Within 1 week	Positive	28-12-1930
7	44	Waterfall	3 months	....	....	....	16-10-1931
8	24	Bodington	5 months	....	....	....	....
9	32	....	7 months	Waterfall	3 weeks	Positive	....
10	51	Bodington	21 months	....	....	....	....
11	27	Waterfall	3 months	Waterfall	1 month	Positive	....
12	41	Waterfall	1 month	Waterfall	1 month	Positive	10-2-1934
13	48	Waterfall	19 months	Waterfall	12 months	Positive	14-5-1933
14	38	Waterfall	2 months	Waterfall	Within 1 week	Positive	26-6-1935
15	...	No records available	....	....	....	....	....
16	26	....	9 months	....	....	Positive	....
17	42	Waterfall	6 months	Waterfall	2 weeks	Negative	....
18	29	Waterfall	3 months	Waterfall	Within 1 week	Positive	....
19	14	Waterfall	2 months	....	....	....	....
20	26	Waterfall	4 months	Waterfall	2½ years	Positive	....
21	30	Waterfall	2 months	Waterfall	1 month	Positive	1-3-1931
22	36	Bodington	9 months	Randwick	Within 1 week	Positive	....
23	50	Waterfall	17 months	Bodington	2½ years	....	....
24	53	Waterfall	6 months	Bodington	1½ years	Positive	7-7-1933
25	27	Waterfall	13 months	Waterfall	2 months	Positive	....
26	...	Waterfall	3 months	Exeter	5 months	Positive	....
27	28	Waterfall	1 month	Waterfall	Within 1 week	Positive	30-1-1934
28	41	Waterfall	1 month	Waterfall	Within 1 week	Positive	1-8-1934
29	44	Waterfall	1 month	Waterfall	2 months	Positive	23-9-1932
30	40	Waterfall	3 months	Waterfall	7 months	....	....

C.—EXETER RED CROSS FARM—*continued.*

ADMISSIONS during 1930—*continued.*

Patient's No.	Age.	Sent from—	Period in Exeter.	Further Admission to Sanatorium at—	Time between Discharge from Exeter and Re-admission.	Sputa.	Died.
31	32	Bodington	8 months	Waterfall	4 years	....	....
32	21	Bodington	18 months	....	....	....	30–4–1934
33	45	Bodington	1 month	Waterfall	5 months	....	....
34	19	Bodington	18 months	....	....	....	....
35	24	Bodington	8 months	....	....	Positive...	....
36	22	Bodington	6 months	....	....	Positive...	....
37	...	Waterfall	2 months	Randwick	Within 1 week...	....	17–8–1932
38	49	Waterfall	4 months	Waterfall	3 months	Positive...	....
39	22	Waterfall	3 months	....	....	Positive...	....
40	64	Waterfall	1 month	....	....	....	....
41	37	Queen Victoria	12 months	Waterfall	12 months	Positive...	....
42	42	Waterfall	5 months	Waterfall	3 months	....	23–1–1932
43	52	Waterfall	1 month	Randwick	3 years	Positive...	22–4–1935
44	39	Waterfall	3 months	Randwick	17 months	Positive...	28–7–1932
45	...	No records available	....	....	....	....	....

DIVISION OF INDUSTRIAL HYGIENE.

REPORT OF THE MEDICAL OFFICER OF INDUSTRIAL HYGIENE FOR THE YEAR ENDED 31st DECEMBER, 1935.

Staff.—Medical Officer of Industrial Hygiene, Charles Badham; Physicist Assistant, H. E. G. Rayner, B.Sc.; Second Assistant, A. M. Willison, B.Sc.

This Division undertakes the investigation of hazards to health in factories, mines and industry generally; the ventilation of theatres, cinemas and other places; the examination of factory children; and the diagnosis of cases of occupational disease.

Dust Diseases of the Lungs.

The work of the medical officer of Industrial Hygiene on the Special Pneumonokoniosis Board of the Workers' Compensation Commission and the investigation into dust-diseases has continued. Pneumonokoniosis among coal-miners is of growing importance, both from the health and economic viewpoints. Briefly, in coal-miners, pulmonary fibrosis arises from an aggregation in the lung of the dust in coal mines which is "coal-dust," silicates and a very little free silica. The work of this Division would put the blame rather on the coal-dust than on the silicates or the free silica. In the coal-miners incapacity comes much more from the resulting emphysema than from the pulmonary fibrosis and the objective, clinical or radiographic determination of the amount of emphysema is very difficult and often impossible.

Compensation Laws for Dust Diseases from a Medical Viewpoint.

In No. 13 of our studies in Industrial Hygiene, Report of the Director General of Public Health, 1927, I have detailed the anomalous nature of the compensation laws of New South Wales for dust diseases. These anomalies still exist.

Our compensation laws fail to recognise that it is beyond medical and radiographical skill to state, during life, if an individual with dust fibrosis of the lungs has been affected by free silica, by silicate, by coal or by a mixture of two or more of these.

If it is known that during the working life of a man he was exposed only to the dust of sandstone (which contains 80 per cent. quartz) or to quartz dust, it can be assumed that any fibrotic disease present is silicosis—that is fibrotic diseases of the lungs due to free silica or quartz. If during his working life he has been exposed only to coal-dust containing 2 per cent. or less of free silica, it can be assumed that any fibrotic lung disease present is due to coal-dust and that the disease is not a silicosis—which in New South Wales is legally defined as a pulmonary fibrosis due to free silica—but a pneumonokoniosis, legally defined as pulmonary fibrosis due to dusts other than free silica. Where the worker has been exposed to a variety of dusts, no medical man can state with any certainty if the disease is silicosis or pneumonokoniosis; yet our compensation laws assume that it is possible to say, "This is pneumonokoniosis due to dusts other than free silica, this is silicosis due to free silica."

The present compensation laws dealing with fibrous disease of the lungs are inequitable and anomalous; to extend the silicosis scheme to include granite workers and some coal and metalliferous miners will add to the confusion. So long as there are different compensation laws for pneumonokoniosis and for silicosis—and it is practically impossible to distinguish between them medically—the amount of useless litigation and suspense for applicants will be more than considerable.

There is no sound reason for having one tribunal for coal-miners and another for stone-masons, and, if the Silicosis Scheme is extended to cover coal-miners who have worked in sandstone in the coal-mines, then, apparently, the affected coal-miner would have to apply to the Workers' Compensation Commission for a part of his compensation and to the Silicosis Committee for another part and bear quite a good chance of falling between the stools of two different standards adopted by two authorities.

The difficulty of drafting equitable compensation schemes for dust diseases of the lungs lies in the fact that this disease is one of gradual onset and may become established three of more years after the causal employment has been abandoned and the employer no longer liable or the industrial activity (for example, a mine) has petered out. It is possible to draft a single law and scheme for the State supported by a special levy on insurance companies.

The cost of compensation for Silicosis will assume less importance with the gravely increasing load of coal-miners' compensation. I urge the great need there exists to co-ordinate the present systems of compensation for dust diseases of the lungs and to establish a central authority that will give a continuity of observation and practice and save the waste of public money that will ensue from over-generous viewpoints or the affliction of sufferers from a niggardly practice.

Any large extension of the Silicosis Scheme will render more obvious the existing anomalies. These anomalies depend on the fact that it is beyond medical skill to say how much of the disease of an affected worker is silicosis under the scheme and how much pneumonokoniosis, protected by the 1926 Workers' Compensation Act.

The Silicosis Scheme might be extended to cover all sandstone workers in the great sandstone belt which stretches from Sydney to Lithgow and from Newcastle to Wollongong. These workers would be stone-masons, quarrymen, sewer-miners and rock-choppers and coal-miners whose work occasionally lies in sandstone. Apart from the coal-miners, the number of men affected would not be very large, certainly less than half the number of those affected in the County of Cumberland (and probably much less).

A Silicosis Scheme, extended, should also take in a few cases that will arise in the Metropolitan, Newcastle and Kembla areas, and probably in isolated areas throughout the state among ore millers grinding quartz, iron foundry workers, paint workers using quartz, soap-makers using quartz, abrasive powder makers using quartz, sand-blasters using sand or quartz, shot-blasters blasting sandy castings, concrete demolishers, potters using quartz, makers and users of sandstone grindstones, and vitreous enamellers using quartz.

Among the metalliferous miners and granite workers, the position is very nebulous. Pure quartz miners should be included in any extended Silicosis Scheme—the number to be compensated would probably be less than the number under the present Silicosis Scheme.

Metalliferous miners, not quartz or granite workers, are a very difficult problem, for, at present, some may develop pneumonokoniosis and, by chance or the wisdom of the Workers' Compensation Commission, perplexed by different medical authorities, get compensation under the 1926 Act or be thrown among the uncompensated silicotics.

If a medical authority were asked to advise as to the position of the granite workers, he would probably do a rough justice by surmising that 50 per cent. of their lung fibrosis came from quartz and was silicosis and 50 per cent. came from silicate and was pneumonokoniosis. It is no exaggeration to say that, if the Silicosis Scheme were extended to cover metalliferous miners and granite workers affected by silicosis, a miner or granite worker might approach the Silicosis Committee and be denied compensation because his disease was pneumonokoniosis, *i.e.*, a pulmonary fibrosis not due to free silica, and then, going to the Workers' Compensation Commission, be held to be a Silicotic and not entitled to benefit under the 1926 Act.

This position reminds one of the fate of a dying cow in India. The Hindus will not kill it because it is a sacred animal and the Mahommadens because they don't regard animals as entitled to pity.

I have written to show that, while it is impossible for medical men to distinguish between pneumonokoniosis, *i.e.*, pulmonary fibrosis not due to free silica, and silicosis, it is futile to draft laws or extend schemes which are based on a supposed medical knowledge that does not exist.

I urge the drafting of a uniform compensation law dealing with all dust diseases of the lungs.

LEAD POISONING.

Of the individuals, suspected of industrial lead poisoning, investigated by this Division during the year, there were no fewer than 131 and 66 of these were diagnosed as having lead poisoning, the remaining 65 had no disability or were not lead poisoned. As in previous years, the majority of these cases came from battery-works but lead-smelting and vitreous enamelling furnished 12 cases and, with the increasing use of lead in vitreous enamelling, this process is destined to give rise to a number of cases.

Some unusual and extremely chronic cases of profound anaemia resulting from lead poisoning have come under notice. One expects an individual with lead anaemia to recover within a few months but, in the cases I mention, they continue gravely affected for years after leaving work and are more serious than cases of paralysis. One case of lead-encephalopathy was seen—he became insane. Liquor has been a determining factor in cases of lead-encephalopathy that have come under my notice.

To reduce the incidence of lead poisoning, there must be considerable development of the work of the Factory Inspectorate. Our work in the diagnosis of lead-poisoning has reached a high standard but the work of prevention is lagging.

The examination of blood smears, submitted by medical officers in charge of six factories engaged in the manufacture of accumulators and battery plates has been continued and 1,726 slides were reported on.

The sixty-six cases of lead poisoning diagnosed by this Division during 1935 were from the following trades :—Manufacture of Accumulators (43), Painting (6), Vitreous Enamelling (6), Lead Smelting (6), Printing (2), Plumbing (1), Lead Burning, water pipes (1), Mixing Putty (1).

Until this year, few cases of lead poisoning have occurred in vitreous enamelling factories. However, recently in several departments of a large factory, individuals have been poisoned. This may be accounted for in part by the increased production but more probably by the greater use of lead enamels. A system of vacuum cleaning has been installed but attention will have to be paid to more efficient exhaust for spray booths and medical supervision of the personnel to prevent poisoning.

A man, aged 31, had been employed for four years on a reclaim furnace. He complained of colic, joint pains, loss of memory and trembling of the hands. There was a marked blue-line and pallor, Hb—67 per cent. with numerous stippled red cells. Lead in urine estimation shewed 0·12 mg. per litre. He was placed in a general hospital for treatment but became hallucinated and delusional and was certified insane and placed in an asylum.

Liquor was a factor that would have to be considered in this case. It is noticeable that his brother, who was employed doing exactly the same work, shewed only a slight anaemia and complained only of occasional pains in the stomach—here the liquor factor was not important. At a later period, the Superintendent of the Mental Home stated that the lead anaemia had cleared up and that in his opinion, the condition was one of Schizophrenia and not Encephalopathy and that the lead poisoning might have been merely a precipital cause.

Table showing the occupations of 131 individuals examined for lead-poisoning during 1935 and the diagnosis.

Industry.	Occupation.	Number examined.	Lead-poisoning with disability.	Not lead-poisoned or lead-poisoning without disability.
Printing	Hand composing	5	1	4
	Machine composing	1	...	1
	Lithographing	1	1	...
	Linoleum	1	...	1
Manufacture of accumulator batteries.	Pasting	15	12	3
	Mixing	2	2	...
	Assembling	6	4	2
	Burning	1	1	...
	Moulding	2	2	...
	Formation	9	4	5
	Repair work	2	1	1
	Lead oxide plants	7	6	1
	Cleaning	5	5	...
	Others	10	6	4
Painting	House painting	11	5	6
	Ship painting	2	...	2
	Rubbing down only	1	1	...
Plumbing—Soldering		3	1	2
Tinning—Soldering		3	...	3
Vitreous enamelling	Mixing	6	4	2
	Sieving	1	1	...
	Spraying	2	1	1
	Labourer	1	...	1
Smelting of metals		12	6	6
Mixing of alloys		3	...	3
Pipe laying	Lead caulking	1	...	1
	Lead burning	1	1	...
Brass Foundry	Furnaceman	1	...	1
Pottery	Kiln-man	1	...	1
Lead arsenate	Spraying	2	...	2
	Packing	1	...	1
Glass worker	Cutting	1	...	1
	Glazier	1	...	1
Miscellaneous	Adventitious exposure	6	1	5
	Non-lead workers	4	...	4
Totals		131	66	65

TETRAETHYL LEAD.

At each medical inspection by Dr. Fairley of the Sydney men engaged in mixing tetræthyl lead petrol, we have examined the blood-slides taken for the presence of stippled cells. Of the 55 slides examined, 22 showed the presence of punctate basophilia, the highest count being 1,200 per million red cells. The average number of stippled cells per slide was 150 per million red cells. No cases of lead poisoning have arisen from the use of tetraethyl lead.

ARSENIC POISONING.

A man employed sieving arsenic in a mechanical sieve was seen in April. He complained in the previous December of a sore inside his nose, and a rash of both forearms, and diarrhoea. He had then ceased working with arsenic until five weeks before examination by me, when he again began sieving arsenic. He had for the last two weeks suffered from diarrhoea, vomiting and epigastric pain, sore septum of the nose, sore eyes, sore throat, cramps in the thighs and calves, " pins and needles " in the fingers, which were very severe, a rash of the scrotum and armpits, a pustular rash of the back of the neck, of the left foot and of the buttocks. Analysis of hair and urine showed—arsenic in urine, 0·024 mg. per litre; arsenic in hair, 7·0 mg. per 100 g. One week had elapsed since his last exposure to arsenic.

Four individuals employed in various processes of vitreous enamelling were examined for arsenic as well as lead excretion. The analysis showed a large increase in the arsenic excretion of these individuals. Three of these four men were also lead-poisoned.

TABLE showing the Occupations of four Vitreous Enamelling Employees, together with the excretion of arsenic in the urine and hair and their complaints and symptoms.

No.	Occupation.	Arsenic in urine. mg. per litre.	Arsenic in hair. mg. per 100 g.	Complaints and symptoms.
1	Mixing (10 months)	0·24	4·8	Headache.
2	Mixing (9 months)	0·24	10·6	Also has lead poisoning and complaints compatible with lead poisoning.
3	Sieving (7 months)	1·0	4·0	Pains in stomach, diarrhoea, etc. Also has lead-poisoning.
4	Mixing (2 months)	1·3	14·4	Pains in stomach, diarrhoea. Also has lead-poisoning.

Eight employees of a firm smelting a bismuth ore, which contained a large percentage of arsenic, were poisoned by arsenic.

TABLE showing the Occupations of eight Men employed Refining Bismuth and Arsenic, together with the amounts of arsenic excreted in the hair and urine, and their complaints and symptoms. (The urine examination of these men was done while at work or within a few days of leaving work.)

No.	Occupation.	Arsenic in urine, mg. per litre.	Arsenic in hair, mg. per 100 g.	Complaints and symptoms.
1	Arsenic reclaim plant (1 month).	1·10	24·0	Severe pains in stomach, diarrhoea, nausea. Rash on arms and belly. Pins and needles in arms and legs. Soreness of calves. Cough, huskiness, and sore throat.
2	Bismuth - arsenic concentrate (3 months).	0·60	14·0	Cramps in stomach, diarrhoea. Sore eyes, nose and throat. Aching of calves and arms at night. Rash of exposed surfaces and groin. Pigmented pustule scars on all extremities.
3	Arsenic reclaim plant (1 week).	0·38	6·0	Vomiting and pains in belly. No diarrhoea.
4	Arsenic reclaim plant (2½ months).	0·40	28·0	Nausea, aching joints, sore nose, sore eyes, vomiting. Rash on forearms and groin.
5	Arsenic reclaim plant (8 months).	0·40	7·0	Diarrhoea, griping pains in belly. Sore eyes and nose. Ulcer of nasal septum. Pustules in flexures of arms, groin and knees.
6	Rebuilding arsenic reclaim furnace (2 weeks).	0·05	33·6	Rash of face along mask line.
7	Rebuilding arsenic reclaim furnace (2 weeks).	0·30	35·2	Rash of face, chest and knees. Sore eyes, sore nails.
8	Rebuilding arsenic reclaim furnace (2 weeks).	0·018	27·5	Pins and needles of legs. Sore eyes, sore nose. Pains in belly.

THE INCIDENCE OF HERPES ZOSTER IN ARSENIC POISONING.

The occurrence of herpetiform rashes in individuals exposed to arsenic has been given little or no mention amongst writers on Industrial Hygiene. In a survey of the available literature dealing with Industrial Hygiene, but one reference to it is found. However, several references are found in the general medical text books.

During the last twelve months, four arsenic workers, suffering from herpes zoster, have been brought under the notice of this Division, three of whom have been seen.

Case 1, aged 39, had been employed spraying prickly-pear with an aqueous solution of arsenic pentoxide. His doctor reports that in November, 1934, he saw this man, who then had "a herpetiform rash in the left pectoral and deltoid region, with malaise etc." Specimens submitted by his doctor to the Government Analyst, one day after leaving work, showed arsenic in urine—0·07 mg. per litre, and arsenic in hair—15·8 mg. per 100 g. The patient was placed in a hospital, where the doctor in charge states "it is the third case in twelve months, that I have seen of a well-marked herpetiform rash in prickly pear workers." When seen by me, forty-eight days later, his only complaint was severe pains of the left side and loss of weight. The rash had subsided. An analysis of his hair and urine showed—arsenic in urine, 0·008 mg. per litre; arsenic in hair, 5·4 mg. per 100 g.

Case 2 had been employed spraying prickly-pear with an aqueous solution of arsenic pentoxide. On examination he stated that eight months previously he broke out in boils on the right side of neck, right axilla, and right side of back. He also states that at this time "shingles" appeared across the chest, under the right arm-pit and to the middle of the back, which lasted for months and was associated with severe pain. (Scars of this herpetiform rash could be seen on the back). He also stated that he had had intermittent attacks of diarrhoea, severe headaches, "shooting-pains" in legs, soreness of calves, pains in stomach, sore eyes, "pins and needles," and numbness of the hands and feet. He stated that black spots appeared under the nails of all the fingers of the left hand and the index, middle and ring fingers of the right hand with accompanying pain Analysis of his hair and urine fifty-four days after leaving work, showed—arsenic in urine, 0·016 mg. per litre; arsenic in hair, 24·0 mg. per 100 g.

Case 3, aged 38, had been employed spraying prickly-pear with aqueous arsenic pentoxide. Seen thirteen days after being exposed to arsenic, he had an herpetiform rash of the left side of chest and back, which he stated had lasted for three months. He also had pigmented ulcer scars of the whole body, chiefly of the legs. He complained of sore eyes and a cough. Analysis of his hair and urine showed—arsenic in urine, 0·6 mg. per litre; arsenic in hair, 8·7 mg. per 100 g.

MOLE RIVER ARSENIC MINE AND REFINERY.

Following complaints of the poisoning of stock in the vicinity of the Mole River Arsenic Refinery and, that the incidence of poisoning had increased greatly of recent months, an investigation was made in July, 1935, to determine what hazard might exist. This investigation was directed not merely to the poisoning of the stock, but in a broader field of Public Health.

The Mole River Arsenic Refinery Company carries on the mining of arsenical ore and the production of arsenic by the burning of the ore and the collection of the arsenic trioxide that is formed in a large flue—an extensive concrete structure in which the arsenic sublimed from the ore is deposited. The nuisance that has arisen at the Mole River comes from the faulty operation of this flue and in consequence of this some tons (at least 5 tons) of fine arsenic have been spread, by the prevailing winds over an area of 500 acres, nor is this the limit of the distribution of arsenic.

The site of these works is a charming valley through which runs the Mole River, the country for a few square miles is undulating, covered with tall dried grass and having a few shade trees—heavily wooded hills surround it. It is significant that some of these shade trees which lie in the direction of the prevailing winds, having survived the operations of this arsenic refinery for some years, were killed during the past year.

A number of small shacks and a few weatherboard places form the homes of the workers in the refinery and are between the River and the works, and a small school—erected in the past year—lies a little further away to the north-west. Concerning the water supply of those living near the works, I have in a previous report—May, 1934—stated, " The water supply is taken from the downstream side, a sample collected showed 0·003 mg. arsenic per litre. Although this amount would not probably cause trouble, greater contamination might take place under adverse conditions, and it is important to draw the water supply from the upstream side of the works. The possibility of grave contamination of the water supply is ominous."

I am informed that somewhat belatedly a structure to catch and deal with the arsenic containing effluent from the works has been installed since July 26th, 1935. This effluent when sampled by the Health Inspector, Tenterfield Shire, contained :—

	Per cent.
Sulphuric acid	2
Arsenic trioxide	0·28

So long as the water supply of the villagers is drawn from the river below the entrance of the gully which forms the natural drainage from the works, a danger of arsenic poisoning exists.

A sample of the water of the school tank, taken on May 31st, 1935, showed that it was unfit for drinking purposes owing probably to the unskilled whitewashing of the roof—and it also contained 1·6 parts of arsenic per million. The tank was recently cleaned out, a sample of the dry sludge, 4 g., found in the guttering of the roof, contained 1,020 mg. of arsenic per 100 g.

Specimens of the hair of 11 of the children attending the school were taken—there were no complaints of ill-health but all showed indications of a definite intake of arsenic. In view of the wide-spread distribution of arsenic found in dry herbage, I advised that the water of the school be analysed quarterly.

No recent complaints of sickness or unusual incidence of dermatitis, such as I previously investigated, were received from the employees. I decided to endeavour to ascertain what area of the surrounding country was being contaminated by deposition of arsenic from the flue. In places as shown by accompanying table, I took samples of dried tall grass, the first inch of top-soil and a sample of the soil at a depth of six inches. These analyses show a widespread and unexpected heavy deposition of arsenic. It is difficult to correlate the analyses of the dried grass, top-soil and sub-soil and arrive at some common factor of surface exposed, but I think it is reasonable to believe that the amount found in the tall dried grass is out of proportion to that found in the top-soil. Except within a few hundred yards of the works, the top-soil does not contain large amounts of arsenic, but the tall dried grass north-west, south-east and south-west of the works, 1,250, 800, and 500 yards respectively contained amounts of arsenic which, in my opinion, would cause death or disease of stock that might eat it. The residential area did not offer suitable places for sampling and 280 yards across the river from this area the arsenic in the dried grass, top-soil and sub-soil was negligible. It is clear from the attached table that I have not determined the full extent of the contaminated area.

From the apparently larger relative amount of arsenic found in the dry herbage, combined with the recent killing of shade trees, I believe that this distribution of arsenic is evidence of an unusual liberation of arsenic from the flue—in short, that arsenic which should have been retained in the flue had been broadcast by the prevailing winds.

Dr. Seddon and Mr. Ramsay* have shown that 13 grains of arsenic (854 milligrams) might cause acute poisoning in sheep and 4 milligrams per lb. of body weight in cattle. Figures for chronic poisoning of stock are not available to me.

I advised, subject to any special knowledge of this problem by the Agricultural Department, that all the dry herbage within 1 mile of the works south of the river should be burnt off when there is a good wind to protect those engaged burning off. No stock should, in my opinion, be grazed in this area until after heavy rains and then preferably after the new grass has been analysed.

That the Mines Department be requested to ascertain if the structure of the arsenic collecting flue is capable of improvement by better baffling or extension.

TABLE showing the Deposition of Arsenic over the surrounding country of the Mole River Arsenic Refinery.

Site of taking sample relative to the refinery.	Mg. of arsenic per 100 g. of dried herbage.	Mg. of arsenic per 100 g. of top-soil.	Mg. of arsenic per 100 g. of sub-soil.
250 yards N.W.	320	45·0	1·8
500 ,, N.W.	182	18·0	......
750 ,, N.W.	46	7·1	0·7
1,000 ,, N.W.	79	7·0	......
1,250 ,, N.W.	500	11·0	0·1
250 ,, S.W.	740	27·0	......
500 ,, S.W.	325	6·0	0·55
300 ,, S.E.	190	36·0	......
550 ,, S.E.	167	17·0	1·1
800 ,, S.E.	72	3·6	......
550 ,, E.S.E.	275	18·0	......
550 ,, E.	61	27·0	......
250 ,, N.E.	6·8	1·4	0·1

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* Arsenical Poisoning in Stock from the Ingestion of Vegetation Sprayed with Arsenic.—Ramsay and Seddon. Vet. Research Rept. No. 6 Parts I and II, June, 1931, p. 58; Department of Agriculture, N.S.W.

An inspection was made of the Wallangarra Arsenic Works in July. They are situated at Jennings, on the New South Wales side of the Queensland border, adjoining Wallangarra. At one time these works were used to manufacture arsenic pentoxide, which included the making of nitric acid, but now only the mixing of arsenic with sulphuric acid is done there.

There had been accumulated in an area of about 5 acres over 20,000 iron drums, as well as dumps of other rusting iron vessels that once contained arsenic solution. The majority of these containers were of no further use and would disintegrate in a long period of time.

The potential dangers of the works were—

(1) The easy access of children or unauthorised persons to the dumps of containers, which still have residues of arsenic in them.

(2) The drainage from the works or dumps polluting natural watercourses or wells.

These dangers have been dealt with by—

(1) The erection of a new barbed-wire fence and by the Shire Health Inspector arranging for warning notices to be erected.

(2) A large pit containing limestone being dug to collect the effluent containing arsenic or sulphuric acid from the process at present being carried on.

VENTILATION.

The examination of cinema theatres has been carried out when required by the Chief Secretary's Department. Air conditioning plants have been installed in several theatres, and they appear to be very efficient in giving comfortable conditions in the hot and humid weather. These systems supply at least 10 cubic feet of fresh air per person per minute, and re-circulate a percentage of the air exhausted from the theatre. This does not comply with the present regulations.

I have endeavoured to get the re-casting of out-of-date regulations for theatre ventilation. The advent of conditioning plants and the desire of the engineers to husband the cooled or heated air means that the re-circulation of air will be practiced because the engineering mind sees no objection to unlimited re-circulation.

The ventilation of Sydney theatres and cinemas is generally very bad, owing to out-of-date regulations and lack of any efficient and continuous system of inspection. The plants installed are mostly capable of giving satisfactory conditions, but are only run intermittently. On a number of occasions when present at cinemas, I have had to request the management to start the ventilating machinery. I, have frequently pointed out that the regulation requiring the ventilating machinery to be kept in operation during the whole time that the public are present in the building, is being broken by many of our theatres and, until a continuous system of inspection is instituted, this will persist.

THE TEXTILE INDUSTRY.

Following a complaint, an inspection was made of the working conditions in a factory engaged in the manufacture of felt—the chief materials used being jute, cowhair, waste cotton, rayon and rope.

The method of manufacture closely follows the carding processes of cotton and woollen mills.

The waste materials used frequently contain much dust and small fibres which readily fly. The machines were connected to an exhaust fan, which discharged into a hessian dust collector.

The worst conditions were found in the flock house, where old sacks and waste materials were passed through rag-tearing machines and the flock collected in small wooden rooms. The ventilation was poor, and it was difficult to keep the wire-screens, connected to the exhaust, clear. During the inspection, the air of the whole section was charged with flock and dust and the doors of the two flock collecting rooms were partly open. The operators were wearing handkerchief masks and goggles.

The exposure to dust and fibre in the mixing and carding rooms was much less than in the flock room. The machines were connected to an exhaust fan, but better general ventilation was necessary to reduce the dust exposure of the employees, one of whom had received compensation for a respiratory disease.

The Department of Labour and Industry were informed that the conditions of work were not considered satisfactory from a health point of view, and that the firm should be asked to improve the general ventilation in all sections and to improve the present methods of work in the flock house. In this section, apart from poor ventilation, the plant is constructed so that the employees are unreasonably exposed to dust and fibre particles.

Working in collaboration with the Department of Labour and Industry, steps have been taken to improve the working conditions in the cotton industry. In one factory, a vacuum "stripping" brush is used, and the dust hazard here is under better control than in the second factory, where stripping is carried out without a vacuum brush. In this latter factory, a system of exhaust ventilation has been installed in one carding room, and will be extended to the other carding room. A willeying machine has been provided in another section, with the result that the dust has been considerably reduced.

SECTION II.

1.—Metropolitan Combined Sanitary Districts of Sydney.

Report of the Medical Officer of Health for the Year 1935.

J. S. Purdy, D.S.O., M.D., C.M. (Aber.), D.P.H. (Camb.), F.R.S. (Edin.), F.R. San. I.

To the Director-General of Public Health.

Sir,

I have the honour to report on the health conditions of the Combined Sanitary Districts of the Metropolitan Area of Sydney for the year 1935. The infantile mortality rate of 34·94 per 1,000 births was the lowest recorded in the Metropolitan Combined Area. The Combined Districts for the purposes of health administration consist of the metropolis, together with seven outside metropolitan districts. The metropolis of Sydney proper includes the City of Sydney, forty-eight municipalities, and two wards of Holroyd Municipality. The outside metropolitan districts, which are separately dealt with statistically, include four municipalities, the other two wards of Holroyd municipality, together with Warringah and Hornsby Shires.

From the beginning of 1927, deaths have been distributed by the Government Statistician to the locality, where known, in which the deceased permanently resided, and births to the places of permanent residence of the mother.

At the Census of 30th June, 1933, the population of the Metropolitan Combined District was 1,304,417, and of the City of Sydney 88,308. The Government Statistician's estimate of the population at 31st December, 1935, was 1,327,140, and the mean population 1,322,080.

There were 18,118 births to mothers resident in the Metropolitan Combined Area in 1935, equivalent to a rate of 13·70 per 1,000 of population. Male births numbered 9,206; females 8,912, being a ratio of 103 males to 100 females. There were 849 ex-nuptial births, equivalent to 4·69 per cent. of the total births, or ·64 per 1,000 of the population.

Deaths.—There were 13,368 deaths of residents of the Metropolitan Combined Area in 1935, giving a rate of 10·11 per 1,000 of the population. (See Table 1 on page 99.)

Detroit, U.S.A., with a death-rate of 8·4 for 1933 has forged ahead of Sydney in establishing a record for the lowest death-rate of any city with a population of over half a million.

There were 633 deaths of children under one year of age, equivalent to a rate of 34·94 per 1,000 births.

Causes of Deaths in the Metropolis.

Diseases of the Heart.—The group, Diseases of the Heart, again occupies the premier position as the chief cause of death, accounting for 3,274, or a rate of 262 per 100,000 in 1935. There were 1,466 deaths from heart diseases among females, to 1,808 among males; 17 males and 32 females were under 25 years of age; 42 males and 41 females from 25 to 39 years; 885 males and 556 females from 40 to 69 years; and 862 males and 837 females aged 70 years or over. Occupation is probably the main factor in the difference in the higher rates in men than in women after 40 years of age.

With regard to rheumatic affections, acute and chronic rheumatism, chronic arthritis, etc., accounted for 54 deaths in 1935. Eight of the 54 deaths were of persons under 20 years; 7 were 20–39 years; 21, 40–69 years; and 18 were 70 years of age or over.

Two hundred and ninety-four males and 147 females died from diseases of the coronary arteries; 27 males and 13 females died of angina pectoris, with record of coronary artery disease, and 52 males and 25 females of angina pectoris, which again illustrates the greater frequency in later life of degenerative changes in the arteries of the male.

In 1935, 36 males and 4 females were reported to have died from syphilis, of whom 1 male was one year of age.

Nine men and 2 women died from alcoholism (acute and chronic), the ages of the women were 35–49.

Cancer.—With its heavy toll of 1,486 deaths (700 males and 786 females), still baffles intensive and extensive research, and was again second on the list of killing diseases. The continued increase in the number of deaths from cancer emphasises the importance to the public of the often repeated warning that there should be no delay in seeking skilled advice on appearance of any suspicious symptoms.

Bright's Disease (acute and chronic), is third on the list of "Causes of Death," and claimed 833 victims, 456 males and 377 females.

Pneumonia holds fourth place, with 811 deaths (males, 459; females, 352); 311 deaths were due to broncho-pneumonia, 367 to lobar pneumonia, 128 to pneumonia (unspecified), and 5 to capillary bronchitis.

Tuberculosis.—The number of deaths from all forms of tuberculosis in the metropolis proper was 605, of which 561 were due to tuberculosis of the lungs; 16 to tubercular meningitis; and 28 to other tubercular diseases. These figures include deaths of former metropolitan residents which occurred at sanatoria and other institutions. During the past forty years there has been a reduction of the death-rate of pulmonary tuberculosis by more than half. A better standard of living and, above all, more appreciation of living and sleeping in the open air, have all contributed to the ever improving record.

Deaths from Accidents.—It is an indictment against modern conditions of living that the next most common cause of death (after cerebral haemorrhage) is that due to accidents. In 1935, 504 persons (364 males and 140 females) were fatally injured, an increase of 72 on the figures for 1934.

Accidents from railways and tramways caused 50 deaths, of which 8 were women; motor vehicles 219 (166 males and 53 females), or 36 more than in 1934; and other land transport accidents, 11 (9 males, and 2 females).

TABLE I.

SHOWING Population, Density of Population, and Deaths from certain Diseases in the Municipalities of the Metropolitan Combined Sanitary Districts for the year 1935. The deaths are of residents of the districts named.

Municipality.	Estimated Mean Population, 1935.	Density of Population per acre, 31st Dec., 1935.	All Causes.	Diarrhoeal Diseases, including Enteritis.	Epidemic Diseases.	Tuberculosis of Respiratory System.	All Tubercular Diseases.
City of Sydney	88,250	26·99	1,211	5	36	66	72
Alexandria	9,010	8·53	100	...	1	8	8
Annandale	12,220	35·26	163	...	6	9	9
Ashfield	39,690	19·49	459	5	4	10	11
Auburn	20,230	7·83	193	...	12	6	6
Balmain ...	28,270	28·78	308	4	5	11	12
Bankstown	25,930	1·37	208	...	11	9	11
Bexley	20,780	10·93	182	...	8	3	5
Botany	8,490	3·94	71	1	4	3	3
Burwood	19,620	17·87	195	2	7	3	3
Canterbury	80,040	9·74	573	5	21	34	34
Concord	23,400	8·66	146	...	7	5	6
Darlington	3,050	55·93	30	1	1	2	2
Drummoyne	29,590	15·21	261	2	13	8	8
Dundas	6,140	2·28	58	...	2	4	4
Eastwood	3,120	1·06	27	...	3	3	3
Enfield	14,860	8·89	131	2	5	6	6
Ermington and Rydalmere	2,380	1·17	39	...	1	1	1
Erskineville	6,640	35·65	68	...	4	4	4
Glebe	19,850	38·11	213	1	4	11	12
Granville	19,870	4·95	179	...	7	8	8
Holroyd (Pitt and Merrylands Wards)	8,580	3·93	72	...	2	9	9
Homebush	3,190	5·36	48	...	...	1	1
Hunter's Hill	9,130	6·48	74	...	...	2	3
Hurstville	23,010	3·79	241	2	5	11	11
Kogarah	31,210	6·54	246	1	11	10	12
Ku-ring-gai	29,470	1·48	264	1	7	18	19
Lane Cove	15.470	6·07	120	...	4	7	7
Leichhardt	30,270	26·23	301	1	15	7	8
Lidcombe	17,450	3·35	335	4	17	8	9
Manly	24,000	7·79	245	1	9	8	10
Marrickville	45,550	24·14	435	...	13	23	25
Mascot	14,730	6·68	117	1	3	8	9
Mosman	24,130	11·34	280	...	7	5	5
Newtown	25,260	52·38	306	4	17	15	16
North Sydney	50,150	19·89	536	2	19	17	22
Paddington	24,700	58·50	278	3	7	14	14
Parramatta	18,320	8·26	254	...	8	7	9
Petersham	27,180	32·00	308	2	10	15	15
Randwick	79,970	9·42	745	2	25	44	45
Redfern	18,790	46·14	280	3	15	20	22
Rockdale	39,730	7·85	301	...	7	14	16
Ryde	28,430	4·11	241	2	13	17	17
St. Peters	12,570	13·92	139	...	2	9	10
Strathfield	12,440	6·84	123	1	3	2	2
Vaucluse	7,450	9·45	57	...	3	2	2
Waterloo	11,690	14·14	121	1	3	3	4
Waverley	57,380	26·50	527	1	12	22	23
Willoughby	43,200	7·97	371	5	9	16	17
Woollahra	35,620	18·96	372	3	10	13	15
Total, Metropolis	1,250,500	8·00	12,552	68	418	561	605
Cabramatta and Canley Vale	6,530	·85	58	...	4	3	3
Fairfield	9,070	·58	88	...	4	6	7
Holroyd (Guildford and Wentworth Wards)	7,820	1·07	60	...	1	2	2
Hornsby Shire	23,190	·18	268	5	7	22	25
Ingleburn	1,950	·16	12	...	...	2	2
Liverpool	6,500	·25	157	1	4	1	1
Warringah Shire	16,520	·25	173	...	8	10	10
Total, Extra Metropolitan ...	71,580	·28	816	6	28	46	50
Total Combined Metropolitan Sanitary Districts	1,322,080	3·17	13,368	74	446	607	655

INCIDENCE OF INFECTIOUS DISEASE.

Scarlet Fever.—In 1935 there were 1,618 cases of scarlet fever notified and 13 deaths in the metropolitan area in contrast to 1,314 cases and 7 deaths in 1934. The death rate was 1·04 per 100,000 of the population. Five of the deaths were of children under 5 years of age.

Since scarlet fever was first notifiable in 1898, there has been a series of five-yearly periods of quiescence, followed by similar periods of treble and quadruple incidence, with a twelve-yearly period of maximum incidence as in 1903, 1915, and 1927, generally ascribed to the appearance of children who have not acquired immunity by a previous attack. The graph shows a decline in this the second year of the usual five-yearly period of comparative quiescence.

An interesting feature of a local outbreak of scarlet fever was that 7 cases were patients of a dentist, whose nurse attendant was found to be a " carrier."

Owing to an outbreak in the wards of a suburban hospital, the hospital was temporarily closed to permit of a thorough cleansing, disinfection, and re-painting and ventilation before re-admission of patients.
Notification, isolation, and disinfection have failed to prevent the spread of the disease.

Diphtheria.—2,467 cases and 103 deaths were notified in the metropolitan area in 1935; 2,746 cases and 91 deaths in 1934—19 more than in 1933.

There has been no marked decrease in the incidence of this disease, whilst there are ominous signs, as an increased death rate, that the type is more severe.

Experience in Detroit, Baltimore, New York, Edinburgh and other cities has shown that the immunisation of the children of pre-school and school age practically means the elimination of this disease.

I am of opinion that the success of immunisation in Detroit allowed that city in 1934 to get ahead of Sydney in securing the premier position in the world as the city with the lowest death rate of all cities with a population of over half a million.

When half the children of Sydney are immunised, she should again lead the world in having the lowest death rate.

Infantile Paralysis.—In the metropolitan area in 1935 there were 57 cases with 3 deaths; in 1934 there were 74 cases with 6 deaths.

The incidence of this disease reached peak periods in 1916, 1923, 1929, and 1932.

Typhoid Fever.—There were 95 cases with 9 deaths in the metropolitan area in 1935; in 1934 there were 49 cases with 3 deaths. The incidence in 1935 was due to two outbreaks in the Strathfield-Enfield area and at Auburn.

There were 32 cases with 1 death between the 13th January and the 28th March.

The cases had one feature in common—milk from a dairy distributing 1,300 gallons of milk daily with 23 employees.

The investigation was complicated by misleading information throwing suspicion on the dairy of a brother of the proprietor. The second dairyman employed six men.

The excreta and urine of the employees of both dairymen were examined bacteriologically, but a definite carrier was not found.

In the Auburn outbreak of 15 cases from 7th January, 1935, to 3rd April, 1935, the patients all had milk from one milk run. It was found that the cases ceased with the removal of a member of the family who had typhoid in 1933, but ten days after his return to another portion of the run 4 cases occurred.

Although repeated examinations failed to find the *B. Typhosus*, it was considered advisable for this individual to discontinue handling the milk.

These two outbreaks were typical of previous outbreaks of typhoid in most of which typhoid carriers were definitely found, and illustrates the fact that the only safe milk supply is one pasteurised and bottled under hygienic conditions carefully supervised.

The health reports of the metropolitan area during the past thirty-eight years chronicling outbreaks of typhoid fever, scarlet fever, and diphtheria traced to infected milk are a convincing argument for the introduction of Pasteurisation, which is now universally recognised as the one measure with bottling which, in addition to supervision of the production and distribution of milk, eliminates the risk, as far as it is humanly possible, of contracting these diseases and bovine tuberculosis as well as septic sore throat from milk.

Encephalitis Lethargica.—Five cases, all fatal, in 1935; 14 cases, 9 deaths, in 1934.

Typhus Fever.—Five cases, 1 death, in 1935. These sporadic cases were probably due to infection spread by fleas associated with rats haunting garbage tips.

Epidemic Cerebro-Spinal Meningitis.—There were 15 cases with 5 deaths notified in 1935; in 1934 there were 14 cases and 3 deaths.

NON-NOTIFIABLE DISEASES.

Measles caused 36 deaths in 1935 compared with 9 in the previous year.

Whooping Cough caused 4 deaths in 1935, of which 3 were under 1 year of age and 1 in age group 5–9 years.

Influenza.—There were 221 deaths from influenza, an increase of 157 on the previous year.

Dysentery was ascribed as the cause of 7 deaths; *Erysipelas* of 9.

The infectious diseases to show decreases in 1935 were whooping cough, dysentery, infantile paralysis, encephalitis lethargica, whilst typhoid fever, measles, scarlet fever, diphtheria, influenza, erysipelas and epidemic cerebro-spinal meningitis showed increases.

Diabetes accounted for 246 deaths, an increase of 37 on the number (209) in 1934. The death rate for 1935 was 19·67 per 100,000, contrasted with a rate of 9·9 per 100,000 in 1911. This increase corresponds to that in other civilised countries. In New York in 1931 the figures were 50 per cent. higher than in 1911.

The increased per capita consumption of refined sugar is suggested as a factor in the increased incidence. In 1935 there were 172 deaths of females to 74 males. The notable increase in females is most marked in the later age periods.

Diabetes, a disease of adult life, occurs at that period when people, from a productive economic sense, are at their best. It might be more often discovered in its early stages if routine examinations of urine for sugar in over-weight individuals of 40 years or over were more general.

Insurance companies would be well advised to co-operate in the field of preventive medicine and give more frequent examinations and advice to their clients.

Insulin treatment and a better knowledge of dietetics with intelligent co-operation of the patient prolong many useful lives.

Diarrhoea and Enteritis caused the deaths of 34 children under 2 years of age, and of 34 persons 2 years and over; in 1934 the respective figures were 45 and 43.

Maternal Mortality.—In the metropolis there were 29 deaths from puerperal septicaemia (including 7 abortions with septic conditions) and 88 deaths from other puerperal diseases.

The Government Statistician estimates the maternal mortality at 4·38 per 1,000 births, excluding deaths after illegal operations.

Infantile Mortality.—There were 602 deaths of infants under 1 year of age in the metropolis during 1935, whilst the births numbered 16,907, giving an infantile mortality rate of 35·61 per 1,000 births.

Of the deaths in the first year of life, no less than 367 occurred in the first week of life, and 436 (or 61 and 72 per cent.) in the first month.

Looking at the rates of infantile mortality in Sydney for the past fifty years, we see a reduction from 192 per 1,000 in 1880 to 50 in 1930; 44·34 in 1931; 39·01 in 1932; 36·82 in 1933; 44·20 in 1934; and 35·61 (the lowest yet) in 1935.

This remarkable fall reflects great credit in the work originally introduced by my predecessor, Dr. W. G. Armstrong, who employed the first Nurse Inspector, Sister Ferguson (now Mrs. Brcs), followed by Miss Isla Blomfield of the City Council, and (later) Mrs. Cooper Day. The fall in the infantile mortality in Sydney for the past five years below 45 per 1,000 is gratifying to the Director of Infant Welfare, and encourages her to continue the campaign in the Baby Welfare Centres. Incidentally, it proves that infantile mortality is not so much a matter of climate as of ignorance in mothercraft.

Dr. Sydney Morris, by educating the mothers through the Baby Health Centres, has now put New South Wales on a par with New Zealand,

TABLE 2.

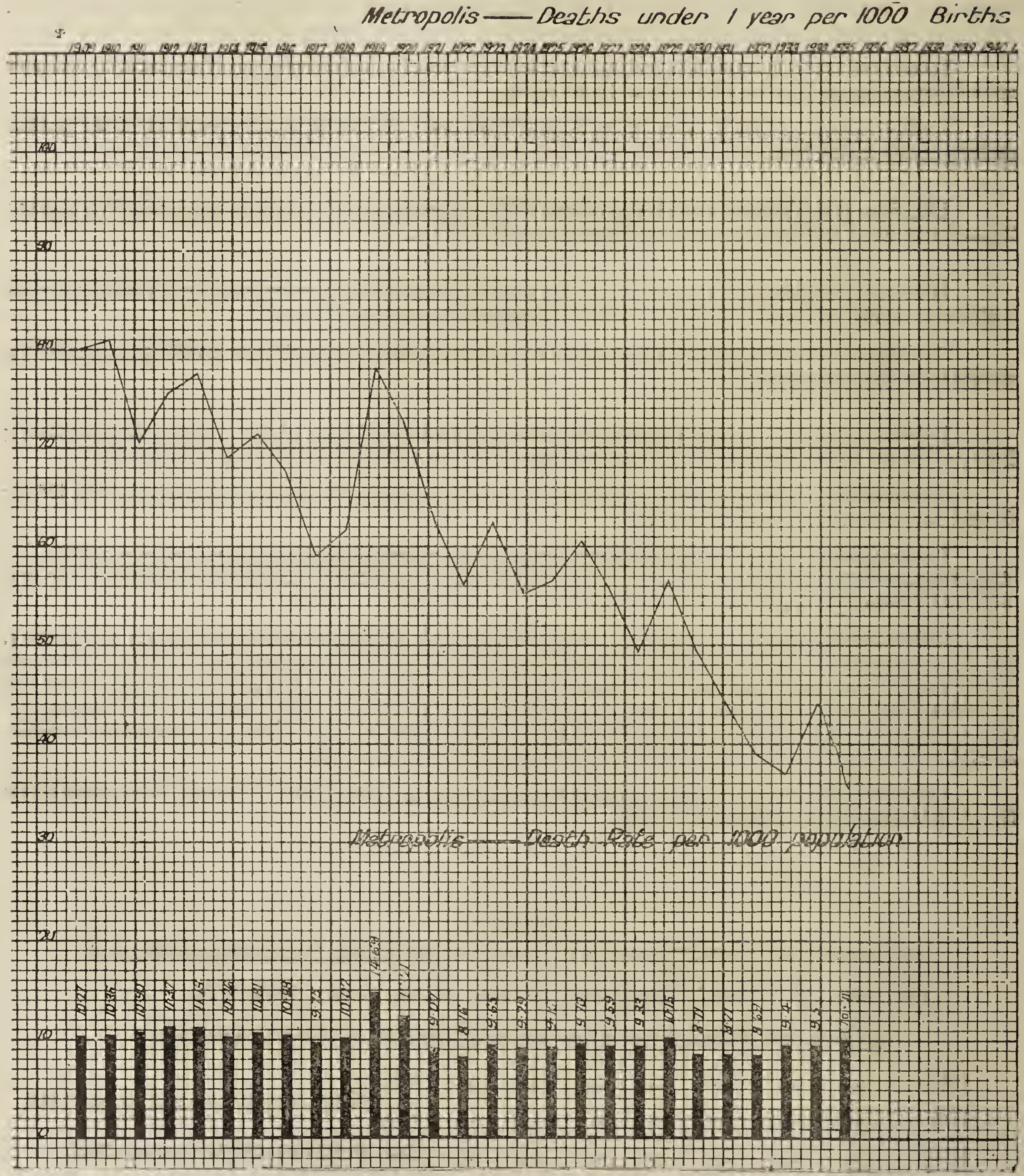
(*a*) Showing deaths of children under 1 year per 1,000 births, from 1880 to 1935; and

(*b*) Deaths of infants in the Metropolis from various causes, 1921–1935.

(*a*) Infantile Mortality per 1,000 Births, 1880–1935, at 10-year Intervals.

1880	192	Dairies Supervision Act, passed 1886.
1890	135	
1900	109	Public Health Act, passed 1896.
1910	82	Visiting nurses first appointed, 1904.
1920	74	Maternal and Infant Welfare Division, established.
1930	50	
1931	44	
1932	39	
1933	37	
1934	44	
1935	36	

METROPOLIS—DEATHS UNDER I YEAR PER 1,000 BIRTHS,



(*b*) Deaths of Infants in the Metropolis from various causes, 1921–1935.

Cause of Death.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
Measles	3	1	6	2	1	8	1	23	12	15	2	1	1	1	5
Scarlet fever	...	...	...	...	2	2	5	5	3	2	2	1	2	...	1
Whooping cough	27	24	24	16	74	38	70	16	79	34	70	11	5	89	3
Diphtheria	11	10	12	5	12	11	8	8	14	7	10	7	4	...	5
Influenza	7	1	9	4	8	5	5	3	3	2	4	4	3	1	6
Cerebro-spinal meningitis	1	3	2	3	2	6	3	2	...	2	1	1	1	2	3
Tuberculosis-meningitis	9	8	2	6	3	5	4	2	10	5	3	...	2	1	1
Other tuberculous diseases	5	2	2	1	5	5	3	5	4	4	1	2	2	...	2
Meningitis	14	10	19	20	15	18	17	12	14	11	4	8	5	13	7
Convulsions	18	15	11	13	12	25	19	5	4	4	7	1	...	...	1
Other nervous diseases	4	1	2	2	2	9	4	2	5	...	2	4	6	...	4
Bronchitis	20	21	29	16	18	10	13	13	19	14	11	5	5	5	3
Pneumonia	101	132	129	139	141	105	146	108	164	82	92	54	75	71	55
Other respiratory diseases	6	2	2	4	3	1	5	7	3	1	2	3	1	5	2
Diseases of the Stomach	12	6	6	5	5	6	8	3	1	2	1	1	3	...	...
Diarrhoea and enteritis	385	257	407	224	211	281	163	181	144	219	105	59	36	36	24
Intestinal obstruction and hernia	17	7	8	9	9	17	5	6	12	5	6	6	7	8	4
Bright's disease	2	2	...	1	...	1	1	...	2	1	2	1	1	...	...
Prematurity	379	362	379	382	355	388	313	320	379	353	244	234	221	222	195
Congenital Malformations	91	114	99	100	93	95	100	76	101	73	64	76	79	89	83
Congenital Debility	130	118	104	125	87	90	91	84	93	64	38	28	28	23	26
Injury at birth	44	49	44	50	47	58	49	60	58	64	73	65	49	64	67
Other developmental diseases	67	70	52	62	71	58	48	48	61	58	44	68	45	58	54
Accident	9	7	10	13	11	7	13	8	20	13	10	10	17	9	13
All other causes	52	57	47	60	68	66	67	45	58	60	48	36	31	34	38
Total	1,414	1,279	1,405	1,262	1,255	1,315	1,161	1,042	1,263	1,095	846	686	629	731	602

FOOD POISONING.

A severe outbreak of food poisoning occurred on a Saturday evening at Bankstown, where fifty-five cases followed the eating of four hundred pennyworth of ice cream made locally and sold by a street vendor.

The portion of the ice cream sold in the afternoon caused vomiting and diarrhoea late on the Saturday night and early on Sunday morning.

Fortunately all the cases, including 48 children, recovered.

Such cases (at one time called ptomaine poisoning) as in this instance, are due to infection with bacteria giving rise to toxins causing vomiting, diarrhoea, and sweating.

Ice cream produced under rigid hygienic conditions, as is general in up-to-date Sydney factories, is recognised not only as a luxury but as a valuable food, especially in winter, as it contains at least 10 per cent. of milk fat.

Steps were taken to prevent any further manufacture of ice cream on the premises concerned.

This outbreak is a further argument for the licensing and careful supervision of all premises where milk and milk products, such as ices, are sold.

ALLEGED MALNUTRITION.

Having been asked by the City Council to determine whether a statement that "forty per cent. of school children showed evidence of retardation owing to malnutrition," I recommended the Right Hon. the Lord Mayor, Alderman Arthur McElhone, to summon a conference of medical experts to report as to evidence of malnutrition and rickets in children.

The following accepted the invitation of the Lord Mayor, who attended with the Town Clerk, and opened the conference :—

> Dr. A. M. Davidson, President of the New South Wales Branch of the British Medical Association, was Chairman, Dr. R. B. Wade, President of the Royal Alexandra Hospital for Children, was Vice-chairman.

A sub-committee, consisting of Dr. A. E. Machin, Principal Medical Officer, Education Department; Dr. Edgar Stephen (Senior Physician, Royal Alexandra Hospital for Children); Dr. Inglis Robertson (Renwick Hospital for Children); Dr. Margaret Harper (Tresillian Mothercraft); and Dr. J. S. Purdy (City Health Officer), drafted the report.

The following also took part in the Conference :—

> Drs. J. Eli Webb, M.L.A., L. W. Nott (Canberra), Laurence Hughes, P. L. Hipsley, Raymond Green, C. L. S. Macintosh, K. Maddox, E. Sandford Morgan, Geoffrey Bourne, C. S. Lowe, W. C. Petherbridge, D. G. Heffernan, W. J. Plomley, J. E. Sherwood, Wilfred Vickers, S. W. G. Ratcliffe, Keith Craig, Lorimer Dodds, G. Tait, Victor Conrick, and Professor Henry Priestley.

The following report was submitted by the Right Hon. the Lord Mayor to the Hon. the Premier:—

"The Conference at the outset draws attention to the fact that there is no International or National standard by which malnutrition, which has not even been specially defined, can be measured.

"An investigation of this nature must, therefore, depend upon no formal standard, but must depend upon practical clinical experience.

"There are no hard and fast standards by which one can estimate what should be the state of nutrition of any particular child, on account of the various factors of heredity, environment, endocrine development, etc.

"In the course of a routine medical examination of 80,000 children in the Metropolitan area of Sydney, by the School Medical Officers, the incidence of notifiable malnutrition was 1 per cent.

"In a recent intensive survey of 2,658 children, the incidence in two schools was found to be 2·3 per cent. and 1·2 per cent. respectively.

"In the Report of the Royal Alexandra Hospital for Children Dr. Edgar Stephen states—

"'Malnutrition does not necessarily imply an insufficient supply of food. Malnutrition in children may be due to—

(1) Insufficient food, due to the poverty or ignorance of the parents.

(2) Unsatisfactory selection of foodstuffs as regards constituents or vitamin content.

(3) Some neglect of general hygiene, such as a sufficiency of fresh air and bodily exercise.

(4) Some inability to assimilate food however reasonably selected, resulting from some constitutional defect in the child, or from the presence of some diseased condition.

"'In our experience parents in general seem to have due appreciation of the quantity and type of food their children require, and of the value of the inclusion of vitamins in the food.

"'A striking instance of the intelligent feeding of children by their mothers is afforded by the manner in which they handle gastro-intestinal disorders in the home. Credit is undoubtedly due to the clinics established for the welfare of mothers and babies, but the main factor is their application of the principles to be followed in such cases.

"'(1) *Malnutrition.*—In a recently completed investigation to inquire into the incidence of malnutrition in patients attending the Out-patient Department of the Royal Alexandra Hospital for Children, a series of 120 children were critically examined. In nine of these cases there was definite clinical evidence of malnutrition. In eight of these children there was a marked lack of appetite. The mothers were then questioned, and they stated in each instance that an ample supply of suitable food had been provided. An explanation for this lack of appetite and failure to thrive was then sought, and it was found that two of these children suffered from chronic pyelitis, four from infected tonsils, one from unsatisfactory convalescence from operation of appendicectomy, and one was a contact with tubercular disease. The remaining child was referred by the Education Department on account of malnutrition. In this there was no lack of appetite, and he availed himself of the liberal diet provided. His tonsils were found to be grossly infected, and this afforded a reasonable explanation of his state of malnutrition.

"'It is the individual and collective opinion of the Medical Staff of this Hospital that there is little evidence of malnutrition in children attending for treatment."

"The Hon. Staff Doctor, Renwick Hospital for Infants, reports—

"'*Re Malnutrition.*—Total in-patient cases treated during 1934 were 856, of which 57 cases, including 6 in a marasmic state, were suffering from malnutrition. In most instances, the malnutrition was directly accountable for by feeding mismanagement. It was not found necessary to report any case as due to neglect or starvation.

"'*Food Orders.*—At the Out-patient Department, Quay-street, 250 food orders are issued per fortnight, which enables the recipient to obtain—

Milk	14 pints.
Eggs	7 to 14.
Green vegetables	4 lb.

each fortnight. This figure is the average figure per fortnight for the first ten months of this year.'"

There is, and always has been, a certain percentage of malnutrition among children.

The opinion of this Conference is that there is little evidence of gross malnutrition in Sydney at the present time.

Rickets.—With regard to rickets. It has always been held that in Australia, with its abundance of sunshine, we are singularly free from rickets as known on the other side of the world.

On the evidence submitted, we find no reason to justify any departure from this opinion.

"Dr. Inglis Robertson (Renwick Hospital for Infants) stated—

"'On the question of rickets, all patients dealt with are within the age period of the first two years of life.

"'Total admissions for In-patient treatment during the ten months period, 1st January, 1935, to 31st October, 1935, 762, of which 63 cases were specially X-rayed for evidence of rickets. Of this number no evidence was detected in 34, whilst 29 cases showed radiographic evidence varying from possible to slight and also healing rickets. That is, 3·81 per cent. of in-patients showed some evidence radiographically of rickets. Apart from transfers from out-patient departments to hospital cots, it was found advisable to examine 31 out-patients by X-ray for evidence of rickets. Of these, 18 showed no evidence, and 13 some evidence. The individual out-patient figures to date are over 4,000.

"'Any in-patient whose general appearance suggested rickets was X-rayed. If any possible sign or symptom of rickets was detected an X-ray examination was made.

"'In cases of mal-feeding such consequences were investigated. Whilst radiographically rickets is detected very early, it was found that frequently an apparently rachitic patient showed no evidence.'"

In a series of 50 cases from "Tresillian," which were followed up during the whole of the first year and to eighteen months, no sign of rickets was detected.

"In the Royal Alexandra Hospital report we find—

"'During the twelve months from June, 1934, to June, 1935, the number of children admitted into Hospital for the treatment of rickets was four. In this same period 56 X-ray films were examined for rickets. In many instances more than one film is taken for each child, so that the total number of cases would be considerably less than 56.

"'Rickets is known to occur in families who can afford to buy what food they wish, as well as in those in straitened circumstances.'"

It was the experience of the members of the Conference that four years ago the occurrence of rickets was much higher than previously, although at the present time the incidence of rickets is low.

The Conference was of opinion that valuable information could be obtained by a special investigation to inquire into the relation of nutrition to health of children of pre-school age, and a similar investigation into the standard of nutrition of children who are attending school, in order to furnish recommendations as to how an optimum standard of nutrition could be obtained.

SANITARY SURVEY.

At a recent Conference of Health Inspectors of the Local Authorities in the Metropolitan area a resolution was sent to the Minister of Local Government and Public Works congratulating him on the improvements carried out under Unemployment Relief, especially in constructing stormwater drains on the boundaries of Municipalities.

In 1935 the drainage scheme from Stoney Creek road, Bexley, to Penshurst Park, Hurstville, completed the drainage of Bexley West and portion of Hurstville.

In connection with the improvement of the Cook's River Basin aconcrete carrier has been formed at the upper reaches of the river in Belmore, Campsie, and Enfield areas.

A concrete carrier from Ramsay-road, Haberfield, to the harbour (Dobroyd Point) completes the drainage from Parramatta-road to the harbour.

A large open brickwork drain has been constructed from Macauley-avenue, Bankstown, to George's River.

The Muddy Creek drainage scheme, embracing Barton Park and Scarborough Park to Sandringham, has been completed.

West Ward Drainage Scheme at Sydenham, draining Sydney-street and streets on the southern side of Victoria-street, Marrickville, is in process of construction.

Reclamations.—There has been much reclamation work during 1935. Morton Park, Marrickville, once a deep waterhole, has been filled in to surface level with spoil from the West Ward Drainage Scheme at Sydenham.

A large washaway at corner of Second and Seventh avenues, Campsie (Canterbury) has been reclaimed by controlled tipping of garbage. The area is now a children's playground known as Harcourt Reserve.

Tasker Park, Canterbury, is being raised by controlled tipping to prevent flooding from Cook's River.

Hurstville has completed a reclamation by controlled tipping at Penshurst Park.

Clempton Park (Canterbury) has its lower portion filled by the controlled tipping of garbage and residue from the old incinerator.

Concord is continuing the good work of reclaiming the Parramatta mud flats, having added during the year another five acres of recreation ground.

Drummoyne has discontinued tipping at Henley Marine Drive, and is now reclaiming at Dibby-street, Chiswick.

The Public Works Department has taken over the reclamation of Henley Marine Drive from spoil and silt dredged from the Harbour.

Incinerators.—The Mosman Council, after much opposition is erecting an incinerator in Warringah Shire, on the boundary of Manly. It was not possible to get Manly Council to agree to join with the other two councils and erect a common incinerator. Manly preferred to repair their old plant.

The new incinerator and disinfector at a cost of £40,000 at Pyrmont for the City Council is completed. A new incinerator is being erected at Leichhardt, replacing the first Meldrum incinerator erected in Sydney in 1901. Granville and Parramatta have not yet decided to erect incinerators. Lane Cove is considering combining with North Sydney to erect an incinerator. Hurstville has secured an area for disposal of garbage, but has been urged to erect an incinerator.

No complaints *re* the Woollahra incinerator have been received since the official inquiry.

Canterbury has temporarily abandoned incineration for controlled tipping and reclamation to form a park.

Rats.—During the year a Conference of Health Inspectors was held at the Sydney Town Hall to urge more action in rat extermination.

Clean-up Week.—In association with Health Week, Bankstown, Bexley, Burwood, Canterbury, Concord, Drummoyne, Leichhardt, Marrickville, Petersham, Redfern, Willoughby, and Woollahra, had special clean-up campaigns. Marrickville actually removed 834 tons of refuse and lumber which had accumulated in the yards of premises.

It is probable that the general clean-up will be extended during the year 1936, as it is realised that the ordinary garbage removal service does not cater for the removal of lumber.

Especially in the crusade to exterminate mosquitoes it is found that the clearing of vacant allotments is valuable.

Licensing of Butchers' Shops.—In the City butchers' shops have been licensed, under the City Council's new by-law.

Extension of Sewerage.

During the year 6,533 houses were connected with the sewer, making in all 226,701 houses connected in the Metropolitan area, serving a population of 954,644. There are still 365,206 houses not connected with the sewerage system, from which can be deducted many houses, especially on the North Shore, that have septic tank installations.

As evidence of the sanitary progress of Sydney, it is interesting to note that in 1899 there were 57,703 houses connected with the sewer, in 1913 there were 114,690 houses connected. By 1938, when Sydney celebrates its 150th anniversary, the number will have been doubled in the previous twenty-five years, and six times that at the beginning of the century.

Following a recommendation as to the order of urgency in extending the sewerage system made by Dr. E. S. Stokes, the former Medical Officer of the Metropolitan Water, Sewerage and Drainage Board, the former Chief Inspector Cresswick and myself in 1929, the following localities have received attention :—Auburn, Lidcombe, Granville, Holroyd, Kogarah, Rockdale, Hurstville, Canterbury, Bankstown, Cook's River low level areas, Northern Suburbs from Chatswood to Hornsby, Lane Cove, Hunter's Hill, Parramatta River frontages of Concord and Drummoyne.

The next recommended for sewerage are the Northern Railway Suburbs from Meadowbank to Thornleigh, Maroubra, Botany, Randwick Rifle Range area, Northbridge, Cronulla.

A scheme should also be introduced to sewer Liverpool.

Housing and Overcrowding.

The City proper of Sydney has a population density of only 26·9 to the acre, and the most closely built suburb, Paddington, only 58·5, in contrast to 300 to 400 in parts of Glasgow, the largest city in Britain (outside London), with a population of 1,115,590 at the last census in 1931.

Whilst there is no overcrowding of buildings per acre, there is evidence, especially in the suburbs of Redfern, Paddington, Waterloo, Alexandria, Newtown, and Erskineville, of congested areas, which call for a scheme for replanning and rehousing.

The overcrowding of individuals in a house is the real menace to the health of the occupants.

Under the Housing Act, 1935, England, a dwelling-house is overcrowded when the number of persons sleeping in the house either—(*a*) Is such that any two of these persons, being ten years old or more of opposite sexes and not being persons living together as husband and wife, must sleep in the same room; or (*b*) is, in relation to the number and floor area of the rooms in the house, in excess of the permitted number of persons. Thus, in one room only two persons; two rooms, three persons; three rooms, five persons; four rooms, seven and a half; five rooms or more, ten persons with an additional two in respect of each room in excess of five.

Where the room in a house has a floor area of (*a*) 110 square feet or more, the permitted number of persons is two; (*b*) 90 square feet or more, but less than 110, one and a half; (*c*) 70 square feet or more, but less than 90, one; (*d*) 50 square feet or more, but less than 70, a half; (*e*) under 50 square feet, nil.

In New South Wales the Public Health Regulation prescribed 500 cubic feet as the minimum space per occupant of any room used for sleeping purposes, 100 cubic feet more than the minimum previously allowed in England.

Figures are not yet available from the Commonwealth Statistician as to the number of families living in single room dwellings at the 1933 census.

At the previous census there were 179 families (539 persons), of two or more persons living in single room dwellings other than tenements or flats; 514 families (1,057 persons) were living in one-room tenements and flats in the Metropolitan area.

To one who has strenuously advocated that housing is a communal problem, and that collective responsibility will come to be recognised, just as a sufficient water supply, sewerage, or the prevention of adulteration, and that the labourer is worthy of a home as well as his hire, it is disconcerting to find that the one example of Municipal enterprise the erection of flats by the City Council has meant a serious financial loss. The following indicates the financial position of the Council in regard to housing schemes :—

Building.	Year erected.	No. of Flats.	Capital Cost.	Net loss since construction.	Approximate loss, 1935.	No. of Flats now vacant.
			£	£	£	
Strickland Buildings	1914	76	49,667	26,319	2,430	1
Dowling-street dwellings	1925	30	24,070	6,430	810	Nil.
Pyrmont dwellings	1926	41	34,549	12,765	1,831	,,
Alexandria dwellings	1927	23	30,442	6,242	1,020	,,
	...	170	£138,728	£51,756	£6,091	

So far there has been no recognition by large industrial concerns or the large insurance companies that the provision of housing at an economic rent would improve the health and work of the employees.

Hammondville.—As demonstrating that "the fervent prayer of a righteous man availeth much," and that philanthropy can be based on common sense lines is the wonderful work of the Rev. Canon R. B. S. Hammond in establishing Hammondville, where there are now eighty houses housing five hundred people. These well-constructed timber houses, where the homeless and unemployed secured a habitation and residence in salubrious surroundings, cost for capital and rent 5s. per week for the first three years, and 7s. 6d. per week for the next four years.

I know of no work for the people more worthy of extension and emulation. It not only is a contribution to the housing problem, but a splendid example of how people can be induced to remove from a depressing and hopeless environment and commence afresh with an outlook of hope and a prospect of rehabilitation.

The rising generation at Hammondville is a worthy contribution to the future citizens of Australia.

Inspection of Restaurants, Tea Rooms, Butchers' Shops, Common Lodging Houses, Barbers' Shops, etc., in connection with the General Administration of the City Health Officer's Department.

Number of premises, City of Sydney, 22,741; restaurants, 324; tea rooms, 203; grill rooms, 66; fruit shops, 192; street fruit stands, 93; fish shops, 81; butchers' shops, 97; barbers' shops, 557.

Summary of Routine Work during 1935.

Complaints received and dealt with, inspections, etc.	593
Inspections, house to house, reinspections, restaurants, streets, lanes, etc. ...	37,290
Inspections of butcheries, meat depots, poulterers, etc.	10,627
Inspections under Pure Food Act Regulations	22,043
Inspections of common lodging houses	165
Investigations of smoke nuisance	248
Investigations of infectious diseases	371
Notices served	2,114
Number of premises referred to the City Building Surveyor	264
Plans reported on	736
Number of premises visited by rat-catching staff	7,208
Number of complaints investigated by rat-catchers	510
Number of traps set and poison baits laid	50,938
Number of rats caught...	3,846
Number of milk samples taken for analysis	642
Dininfection of premises	344
Prosecutions against offenders (Health Department only)...	27
Total amount of fines inflicted	£77 18s.

Legal Proceedings Undertaken.—In 1935 were, respectively, Sydney Corporation Act and By-laws, 1; Public Health Act, 2; Pure Food Act, 24; total, 27.

Milk Samples.—Of 642 samples of milk taken in the city in 1935, two were found not in conformity with the standard. There were two (2) convictions for selling milk deficient in milk fat.

Septic Tank Installation.—Number of septic tanks inspected in 1935 and approved by the Board of Health, 216; sites inspected as to suitability for installing septic tanks, 447 in 1935.

Valedictory Review.

As with the completion of my twenty-four years service in January, 1937, the combination of the positions of Metropolitan Medical Officer of Health and City Health Officer ceases, it is fitting to review the period since that arrangement came into effect.

In his first annual report for 1898 my predecessor, Dr. W. G. Armstrong, recorded for a population in the Metropolitan Combined Sanitary Districts embracing the City of Sydney and forty-seven other Municipalities with a total population of 450,870, a death-rate of 15·07 per 1,000 and an infantile mortality rate of 152 per 1,000 births.

In my first report for 1913, as Metropolitan Medical Officer of Health for Sydney, with a population of 725,400, the death-rate was 10·75 and the infantile mortality 77·5, a reduction of the death-rate by a third and of the infantile mortality by a half.

For 1935, with a population of 1,327,140, the death-rate was 10·11 and the infantile mortality 34·94, the latter being less than half of that twenty-two years ago, and barely a fifth of that of thirty-eight years ago.

For eight years before and including 1928 the average death-rate of the metropolitan area of Sydney was 8·9, the lowest recorded in any city in the world with a population of over 500,000.

In 1933 Sydney lost this proud distinction, which it held for twelve years. In 1933 Sydney, with a population of 1,235,367, had a general death-rate of 9·4. Detroit, U.S.A., with a population of 1,483,274, had a death-rate of 8·4 per 1,000.

Detroit showed 1 per 1,000 improvement over Sydney, in the main due to immunisation against diphtheria.

It is interesting to note that in 1898 the population of the City of Sydney proper, under the City Council, was 98,250; in 1913 it was 116,150; in 1935 it was 88,250.

By using the powers under the Public Health Amendment Act, 1915, many houses have been closed as unfit for human habitation and subsequently demolished.

The turning of residential into business quarters in the city has forced people into the adjoining suburbs. The main notorious so-called " slum areas " of last century have been wiped out by resumption by the Government, the Harbour Trust, and the City Council.

The Rocks Area, Wexford-street, portion of Lower Campbell street, the Brisbane-street area of Surry Hills, portion of Bulwarra-road, Frog Hollow, Robinhood-lane, and adjoining congested streets have been demolished.

Dr. Armstrong, in 1898, writing of death-rates from typhoid fever, diphtheria, diarrhoea, and tuberculosis, states that " the first three are, in the main, dependent upon such insanitary conditions as faulty drainage, bad methods of refuse disposal, etc. Tubercular disease is largely dependent upon dampness of the soil and overcrowding of dwellings."

Although cleanliness of air, soil, and food are the tripod on which sanitation still rests, the origin of most communicable diseases is recognised to-day as not due to defective sanitation of premises, but to transmission from one individual to another of the specific germs of the disease either directly by contact or indirectly by some intermediary, such as a fly, flea, mosquito, bug, louse, or other insect, a utensil used in common, or by food or drink.

Insanitary conditions, especially dampness, by lowering the individual resistance, make people prone to catch diseases spread by droplet infection.

With regard to typhoid, fingers, flies, and food—especially milk—are responsible for the transfer of the infective bacillus from the discharges of actual sufferers from, or so-called carriers of, typhoid fever.

In 1898 there were 75 deaths from typhoid fever in the metropolis of Sydney, whilst the mean annual number of deaths during the previous seven years, was 98. Last year, in the same area, with more than three times the population, there were only 9 deaths from typhoid; in 1934, only 3 deaths.

Outbreaks in recent years have been generally traced to a carrier on a milk run.

The main factor in the reduction of the typhoid death-rate, which has fallen from 51·3 per 100,000 for 1916–1920 to 2·8 for 1921–1926, and for the past five years has been 0·6 per 100,000, with an attack rate of only 3 per 100,000, has been the extension of the sewerage system, thus getting rid of excreta—the potential source of the disease.

In 1899, 57,703 houses were connected with the sewer; in 1913 there were 114,690. In 1935 there were 226,701, serving a population of 954,644. Thus, in twenty-five years, the number of houses connected will have more than doubled when Sydney celebrates its 150th anniversary in 1938.

Two-thirds of the population are now in houses connected with the sewerage system. The remaining 365,206 houses, with the exception of those with private septic tanks, are now served with a double-pan conservancy system.

Diphtheria is a disease which is not caught from foul drains, but by droplet infection from throat to throat, or by some utensil used in common. In 1898 there were 2,041 cases, with 96 deaths, in a population of 708,043; whereas in 1934 there were 2,745 cases, with 91 deaths; and in 1935 there were 2,467 cases and 103 deaths in a population of 1,327,140.

Need for Immunisation.—Thus, there has been some improvement, but nothing to wave flags about. This epidemic disease will be conquered in Sydney when half the children of school age and one-third of those or pre-school age have been immunised, as in Detroit, Baltimore, Edinburgh, and other cities.

Scarlet Fever.—With regard to scarlet fever, there were 2,425 cases, with 25 deaths in 1898; 535 cases, with 12 deaths, in 1913; and 1,618 cases with 13 deaths in 1935.

There has been little improvement in the incidence, which has not been controlled by isolation and disinfection.

Pulmonary Tuberculosis.—In 1899 there were 481 deaths in the metropolis, with a population of 432,625. In 1913, there were 621 deaths in a population of 725,400. In 1935, there were 561 deaths from pulmonary tuberculosis in a population of 1,322,080.

There has been a reduction of the death-rate during the period under review by more than half.

Whilst intensive propaganda in the prevention of tuberculosis, together with instruction in sanatoria, must have had some effect in improving the general condition of the people, better housing, especially the elimination of dampness, increased wages, shorter hours of labour, better feeding, an all-round better standard of living, and, above all, more appreciation of living and sleeping in the open air, have all contributed to the ever-improving record.

Diarrhoea.—As showing the remarkable change in the causes of deaths: In 1902 the deaths from diarrhoeal diseases numbered 823, a death-rate of 1·68 per 1,000 living, which was higher than that for any year since 1896.

In 1935, with treble the population, there were only 68 persons died of diarrhoea and enteritis, half of them under two years of age.

The terrible scourge of summer diarrhoea or gastro-enteritis is now a nightmare of the past, largely due to improved sanitation and the teaching of mothercraft in the Baby Clinics.

Disposal of Refuse.

In 1898 even the City of Sydney tipped its refuse in Moore Park. North Sydney was the only municipality which attempted incineration, in a one-cell incinerator erected by the Pinhoe Refuse Destructor Company, averaging 65 loads of garbage a week.

In 1901 a Goddard Massey Warner top-feed incinerator, erected at Moore Park, disposed of 22,709 tons of city garbage annually.

In 1910, a second incinerator, a Hughes Sterling front-feed incinerator, consuming 19,006 tons per annum was built at Pyrmont.

The e incinerators have now been replaced by a reverbatory incinerator at Pyrmont.

Ashfield has a Meldrum; *Balmain* has a Hughes Sterling destructor at its electric light works; *Bexley* also has a reverbatory; *Canterbury* has a Fox Pinhoe type, temporarily closed; *Dundas* has a small army type; *Glebe* has a reverbatory, erected in 1933; *Hunter's Hill* has a " Simple Aids to Sanitation " type; *Ku-ring-gai* has a reverbatory; *Lane Cove* intends erecting an incinerator; *Leichhardt* built a two-cell Meldrum in 1901 consuming 3,221 tons per annum, now being replaced by a reverbatory; *Manly* in 1914 built a Hughes Sterling incinerator; *Marrickville* in 1914, a Meldrum, which also serves Petersham; *Mosman* is building a Heinan and Froude reverbatory in Warringah Shire, on the Manly boundary; *Newtown*, in 1922, built a Meldrum Simplex, also to serve Redfern; *North Sydney* built a Meldrum Simplex in 1915, disposing in 1926 of 11,889 loads, since extended; *Paddington* built an Armstrong Holland destructor, which also serves Waverley; *Randwick* has a reverbatory; *Waterloo* has a Goodrid reverbatory, built in 1932; *Willoughby* built a reverbatory; *Woollahra* built a Meldrum; *Parramatta* and *Granville* badly need an incinerator.

To-day there are twenty incinerators in the metropolitan area, all milestones of sanitary progress.

Bubonic Plague.

The first outbreak of plague in 1900, with 303 cases and 103 deaths, caused quite a revolution in the sanitary supervision of the city and metropolitan area of Sydney. The whole administration with regard to sanitation was re-organised. Fortunately, two years earlier, Dr. W. G. Armstrong had been appointed as Metropolitan Medical Officer of Health, and Dr. R. Dick as Medical Officer of Health for the Newcastle and Hunter River District, and had been energetically training a staff of sanitary inspectors.

Successive outbreaks of plague over a period of ten years roused the authorities to the danger of dilapidated properties and to the need for drastic action for destruction of rats, and removal of conditions likely to harbour them.

In the last outbreak of plague (November, 1921, to June, 1922) when there were 35 cases and 8 deaths, actually more of the cases arose in the suburbs than in the city proper, in which there were only 14 cases.

My experience as a Medical Officer in the Egyptian Quarantine Service and in handling the outbreak in Auckland in 1908 (when I introduced swabbing floors of infected buildings with kerosene) was effective in introducing as a pulicide disinfection with kerosene oil emulsion, the odour disguised with sassafrol oil.

In dealing with the 1921 22 plague outbreak, the Rt. Hon. the Lord Mayor (Alderman W. P. McElhone) followed up the idea of Mr. E. G. Coote, who had formed the first Block Association. The whole of the city was divided into twenty-eight blocks, each with a president, secretary and executive.

Health Week.

A very successful Health Week was inaugurated in 1923, and has since become an annual event in Sydney as a result of which 392,000 copies of the booklet "Health Makes the Common Wealth," have been distributed.

From the commencement Professor Harvey Sutton, Director of the School of Public Health and Tropical Medicine, has been associated with me in getting the story of Health widely spread each year. Mr. E. W. Adams, Chief Clerk of the Town Clerk's Department, Sydney, was the first secretary. The main portion of the work of organisation in recent years has fallen on Mr. A. G. White, Publicity Officer of the Department of Public Health; Mr. A. Cayzer, Chief Clerk of the City Health Department, succeeded Mr. E. W. Adams; Dr. H. G. Wallace, Senior Medical Officer of Health, joined the executive last year; Mr. Alan Davis is the sixth member, and acts as publisher.

Eighty-eight organisations interested in the promotion of health and welfare are affiliated with the Health Week Executive.

Influenza Pandemic.

There is nothing so forcible as an epidemic for rousing the people out of their apathy with regard to public health. Advantage in this respect was taken of the pandemic of influenza in 1919 to focus public attention on the need for getting rid of insanitary dwellings and for better housing of the people.

Fortunately in Sydney we were forewarned and, consequently, forearmed, by having mobilised the V.A.D.'s Red Cross, St. John Ambulance, and other voluntary workers, who did yeoman service.

To my lot fell the organising, especially of the inoculation depots, by which a quarter of a million were inoculated with a mixed vaccine. The main effect was to allay their anxiety. It could not be claimed that the vaccine was a specific. The wearing of masks, whilst justified for those in actual attendance on cases, did more harm than good when people were compelled to wear dirty masks in the open air.

The introduction of inhalation chambers of steam impregnated with sulphate of zinc, and the taking of portable inhalers to actual sufferers, were speedily discarded.

Although neither a prophet nor yet the son of a prophet, (and it is never safe toforetell the future as Voltaire says), taking the periods supervening between previous pandemics, one would expect the next pandemic in 1948. Probably by then there will be a specific vaccine or some other means of dealing with the disease, as well as the common-sense one of encouraging the people to lead a sober and healthy open-air life, take a plenitude of milk, butter, cheese, fruit, fresh green vegetables, and other protective foods and go to bed on the first sign of an attack.

The suggestion that the pandemicity of these outbreaks is due to carriage of organisms through the stratosphere if proved will bring another problem to tax the ingenuity of the future exponents of preventive medicine.

Parks and Open Spaces.

After four years war service, during which time the late Dr. F. M. Suckling splendidly filled my place, I returned to my civil duties on the 14th October, 1918, imbued with the ideals of the need for building up an A1 nation.

Certainly, if prowess in the field of war or of sport counts for anything the young Australian need not be ashamed to meet the stranger, even within or without his gates.

The late Major-general Sir Neville Howse, V.C., when Federal Minister for Health and Defence, told me that 50 per cent. of the boys examined for military training were not up to a reasonable standard of physique.

In the annual report for 1919, in consultation with the late Sir John Sulman, it is laid down that there should be a park area of one-tenth of the total area or not less than one acre to every 200 of the population, exclusive of national or state parks.

It was advocated that there should be a park within one mile of every portion of a populated area, accessible to all.

Thus parks would be two miles apart on the average, and their size should be proportionate to the density of the population. All local authorities were asked to consider the problem.

A table from time to time has been published in the annual report showing the recreation area in each municipality.

Professor Harvey Sutton summoned a conference of athletic bodies at the Sports Club in 1922, but there was not much response. Of late years, the Parks and Playgrounds Movement led by Dr. C. E. W. Bean and Mr. A. J. Small, has kept the problem before the Government and the people.

Playgrounds.

Owing to the advocacy of the late Mrs. Francis Anderson, the first Children's Playground was established at Miller's Point by the Harbour Trust in 1914. Since then the City Council led in that regard by Alderman E. S. Marks, established playgrounds in each ward, and also subsidised skilled supervisors.

The Health Week Executive took up a proposal to resume eight acres in the rear of the Royal Alexandra Hospital for Children, and create a park and playground. Actually £2,500 has been received for that purpose, but is tied up owing to the original intention not having been carried out to completion.

To quote from the 1923 report:—"Years hence, when future generations enjoy more leisure for recreation, those of the present generation who have not realised that to the decree that man must work for his daily bread there should be added the decree that he must play for the salvation of his body and soul, if not able to communicate this regret to provide adequate open spaces, will not be able to complain if areas given up to the burial of the dead, as has been the case in older cities, are used for the benefit of the living.

"Blessed is the man who provideth a park, for children will play therein."

Fortunately, the Councils and the public are becoming more health conscious, and rectifying the need for adequate playing areas.

The table published in 1927 showed increases in park areas in most of the districts, whilst Ball's Head, Berry Island, and a park at Lidcombe, were given by the Government.

In my opinion, there is no provision which the Government or municipalities can make which gives a better return as far as improvement in the general health is concerned, next to the provision of an adequate supply of milk to children, than the provision of playing areas, as by encouraging healthy play we are getting citizens imbued with high ideals of playing the game.

Mosquito Extermination.

From time to time conferences of Medical Officers and Health Inspectors have been held at the Town Hall, Sydney, to formulate a campaign for combating the mosquito nuisance.

In 1926, as the result of circularising local authorities, eighteen adopted the Local Government Ordinance dealing with the mosquito. To-day the ordinance is in force throughout the Metropolitan area.

Town Planning.

Second only to London, and first among her peers overseas, Sydney, a city which not only in name embraces socially and commercially one community, with one water supply, with one system of sewerage and drainage, with streets continuous or contiguous at present controlled by a multiplicity of authorities, calls for one responsible authority in order to do justice to its unique natural, climatic, and scenic endowments, its present prosperity, and its commanding position as a centre of commerce, shipping, and aviation in the Southern Pacific.

In my official capacity as Metropolitan Medical Officer of Health for Sydney, and City Health Officer for the past twenty-three years, actually synchronising with the existence of the Town Planning Association, I have been in charge not only of the department of health and sanitation of the city of Sydney, but have acted as Health Officer for the fifty-five other local authorities, with a population fourteen times that of the city proper.

To paraphrase the report of the 1894 London Royal Commission, appointed to recommend a scheme for the complete municipal unity of the metropolis through the amalgamation of the Old City and County of London :—" Whether we undertake the organisation of the government of the greater area, or of the smaller areas comprised within it, we are in all cases dealing with areas which possess the characteristics of town life, and the organisation of their joint and several governments should be settled accordingly."

Sydney, like London, is one large town which, for convenience of administration as well as from local diversities, confines within itself several smaller towns ; and the application of the principles and still more of the machinery of municipal government to these several areas must be limited by conditions arising from this fact.

Parts of each arbitrary division are for some purposes known by the name of the adjoining area, of which they are an extension. As a matter of actual fact, it has not been unknown for one authority unwittingly to refer to another the upkeep of a road in their own district, and the disposal of stormwaters or nightsoil from one district to another is a continual source of annoyance and discussion.

Large numbers of children living in one district go to school in another.

An examination of municipal problems shows that whilst the people have one community of interest, there is such a lack of the viewpoint of the community as a whole as to local government, that there does not exist the organisation and machinery to secure positive action on progressive lines.

There are splendid exceptions. For instance, Woollahra has carried out the widening of the great South Head road and the resumption of the Chinese gardens at Rose Bay, with the reclamation of the foreshore and the making of the Marine-parade.

Can anyone seriously suggest that, unless there is some material change in social conditions and a reversal of the tendency to urban segregation, this great Sydney centre of population in which we live will not be greater, and that our preparations at present, through lack of prevision, are not such as will be satisfactory for a population of two or more millions within the same area ?

Take the problem of open spaces, recreation grounds, and parks alone. It is obvious to the average schoolboy, forced sometimes to play cricket on the roadway, that we are not making adequate provision in the suburbs for the increasing population. Surely, although the cost may be considerable to-day, it is a mere bagatelle to what it will be two or more decades hence.

The late Hon. J. D. Fitzgerald, in his work on " Greater Sydney," says :—" It is worth while contrasting the conditions of Sydney in regard to public utilities with those of such cities as Glasgow, Liverpool, Birmingham, and Dublin, which have concentrated the ownership and control of all the public utilities in the hands of their municipal representatives. The British municipality owns waterworks, street cars, electric light, gas, public baths, laundries, markets, harbour and river ferries, docks, farms, and water and sewerage works. It demolishes slums and rebuilds whole areas ; it rehouses the slum dwellers in municipally-owned houses ; it supplies sterilised milk in poor districts ; it supplies bands of music, gives municipal lectures, and has abattoirs, saleyards and markets under the control of its inspectors. It owns art galleries, libraries, concert rooms, and, in some places, golf links, cricket, and football pitches, and tennis courts. These utilities are held and managed for the citizen by the municipal councils. The reason of this concentration of management and control, and of ownership was given by Mr. Joseph Chamberlain in words which are constantly quoted by municipal reformers :—

> "The City Council (Birmingham) are the directors of a great co-operative undertaking in which every citizen is a shareholder, and the dividends are payable in better health, in the increased comfort, in the recreation, and in the happiness of the people."

Now contrast Sydney. A resident at Hornsby, controlled by a Shire Council, gets up in the morning, has a drink of water controlled by the Metropolitan Water, Sewerage, and Drainage Board. For breakfast he has an egg under the Egg Board, milk under the Milk Board, honey under the Honey Board. He takes a train under the Railway Commissioners or a tram under the Transport Board, who also control the Harbour Bridge.

After being obstructed by excavations in the streets, which might have been caused by the County Council Electricity Undertaking, the Public Works Department, the Gas Light Company, the Hydraulic Company, the Water, Sewerage and Drainage Board, the Postal Department, or the Railway Commissioners, he arrives at his office. In the event of any infectious disease he comes under the Public Health Board. If he visits an hotel, the license of which is granted by the New South Wales Government, and drinks whisky he is taxed by the Federal Government.

His chidren may attend school under the Department of Education, or be treated at a hospital under the Hospitals Commission. If his house takes fire he is succoured by the Fire Brigades Board. If he attends a theatre it is under license from the Chief Secretary.

Should he visit the Art Gallery, he is under a Board of Trustees; the Botanic Gardens, under the Government Agricultural Department. Should he fish he comes under the Fisheries Department of the Chief Secretary.

His meat is from cattle killed in a Government abattoir, inspected in the shops by both Government Pure Food Inspectors and local authority inspectors.

By this time he is bored when he finds that fifty-five Mayors and 550 aldermen look after certain circumscribed affairs in the districts which he traverses.

The ocean beaches, which make Sydney stand supreme for surfing among the cities of the world, are under the dual control of the Lands Department and the local councils; whilst the bathing costume is standardised and regularised by the Minister for Local Government.

What a golden opportunity, as far as Sydney is concerned, to have the whole problem dealt with in a comprehensive way by the recognition of the need for unity of control, with intelligent concentration of forces.

Everyone agrees that regional planning is essential. A general survey of local conditions must precede replanning.

Sydney, to be worthy of her beautiful setting, obviously must be rebuilt to a definite regional plan.

There should be an abundant water supply, a complete sewerage system, good dustless roads, underground railways, with buses in the more congested streets in place of trams, horses replaced by motors; adequately garaged and parked. The main narrow streets either widened or arcaded, or, better still, additional main arteries of traffic, such as these suggested by Dr. J. J. C. Bradfield and the City Engineer, a civic centre, the harbour and rivers bridged to facilitate traffic; beautiful marine drives, as from The Gap to Ben Buckler, and Manly to the North Head; more playing-grounds; our foreshores and beaches, with their natural beauty as far as now practicable preserved; Martin-place extended ultimately before the end of the century from the Domain to Darling Harbour; the hospitals distributed and organised on definite lines; schools with adequate playgrounds; a stadium for Olympic games; hangars and aeroplane landing stages; local government offices collected in one area, with branch libraries and rest rooms; an Anzac Arch and Memorial House; cafes, with music; refreshment and dancing in the open air; meat, milk and other produce distributed on the most hygienic lines; adequate provision made in the Hawkesbury District, Burragorang, or other suitable area by irrigation for the supply of vegetables.

Beautifully endowed by nature, it only remains to create a worthy civic spirit in the rising generation by inculcating through the schools the ideal of the city's great destiny, and so ultimately get a generation worthy of its heritage.

Death is, unfortunately, our greatest reformer. It is, however, comforting to feel that as the present generation passes, one more enlightened and less trammelled by tradition and the dead hand of the past, will wonder why we allowed opportunity to pass.

As the present generation passes, a more enlightened and bolder generation, chastened and stimulated by the epoch-making war, is replacing it.

A little leaven such as that supplied by town planning authorities may ultimately leaven the mass.

There can be no absolute satisfactory administration without unity of command and control. Anything short of the amalgamation of the fifty-six local authorities in the metropolitan area, or, in other words, a "Greater Sydney," taking over also the functions of the Metropolitan Water, Sewerage and Drainage Board, the Harbour Trust, the Fire Brigades Board, the control of hospitals, theatres, abattoirs, gas, electricity, traffic, the provision of model lodging houses, the removal of congested areas and rehousing of the people, the provision of adequate playing areas and parks, the securing of landing places for aeroplanes, and all those municipal concerns which are the functions of the great municipalities, such as Glasgow, Manchester, Leeds, etc., will fail to meet the situation.

To create such a Greater Sydney, however, is a task which, in the first place, will require much propaganda, and a change of the whole outlook of the people with regard to local government; hitherto the people, having been content to go, cap in hand, to the central Government for any suggested general improvement.

North Sydney.—As an immediate step, one commends the creation of a North Sydney, to embrace the seven municipalities and shires on the North Shore—North Sydney, Mosman, Willoughby, Lane Cove, Manly, Ku-ring-gai Shire and Warringah Shire.

East Sydney.—To embrace Vaucluse, Waverley, and Woollahra.

The City Proper.—To be extended to embrace the following municipalities :—Redfern, Darlington, Waterloo, Alexandria, Botany, Randwick, Mascot, Paddington, Newtown, Erskineville, St. Peters, Balmain, Leichhardt, Annandale, and The Glebe.

Western Sydney.—Ashfield, Burwood, Enfield, Concord, Strathfield, Homebush, Drummoyne, Marrickville, and Petersham.

Southern Sydney.—To embrace Canterbury, Hurstville, Bexley, Kogarah, and Rockdale.

At present, by utilising the Local Government Act, 1919, it would be possible to group most of the local authorities into county councils, and this might be a preliminary step to the ultimate creation of a "Greater Sydney."

A bill on town planning is urgent, specifying the need and the machinery for carrying it out, not only in the metropolitan area but throughout New South Wales.

To obtain an immediate objective, a regional plan for the county of Cumberland, a solution would be the creation by the Local Government Department of a special board, with an engineer, architect, and surveyor, whose duties would be to supervise town planning as it affects the whole of the metropolitan area, on much the same lines as the Metropolitan Medical Officer of Health supervises the control of the health of the city and the fifty-five adjoining municipalities.

To this board, of which the Metropolitan Medical Officer of Health should be a member, there might be co-opted a large advisory honorary body representative of various organisations and departments. Such a board would act merely in an advisory capacity, and it would be necessary to have a paid staff.

Inspection of Restaurants, Tea Rooms, etc.

Between 1920-1924, 73 restaurants found structurally such as could not be made reasonably suitable for use as restaurants without being practically demolished and rebuilt, were closed.

Being of opinion that the standard of restaurants in the city was below reasonable requirements, after appearing before the Board of Health, I undertook the responsibility of keeping such restaurants not only up to the standard at that time, but with the City Council staff working without any interference in this sphere of work, and by using the powers already possessed under the Pure Food Act, to improve thereon.

After consultation with the staff, a minimum set of requirements was formulated, and 351 notices were issued, dealing with structural alterations, additions, omissions, and renovations.

So drastic were some of the requisitions considered, that the restaurant-keepers held a public meeting, which I attended, and to which I suggested the formation of a small committee to go into the question of what they considered reasonable minimum standard requirements. The committee practically agreed to twelve of the sixteen requirements.

At the end of the year 1920, 165 of the notices had been complied with in their entirety, 147 partially, and only 12 failed to receive attention. Of these 12, three were the property of the City Council, and were demolished in the William-street resumption scheme.

Thirty-two premises were actually closed, these premises being such as could not be made reasonably suitable for use as restaurants without being practically demolished and rebuilt.

The approximate cost of the work as the result of compliance with the notices was £11,280.

The improvements carried out consisted of the making good of defective flooring; rendering defective wall surfaces with cement, cleansing and painting kitchen walls and ceilings; provision of effective light and ventilation; the alteration of kitchen fittings and food lifts; provision of canopies where required over cooking apparatus; making tight-jointed and smooth kitchen tables and chopping blocks; the cleansing of ice-houses and ice-chests; rat-proofing of basements and kitchens; removal of breeding haunts of cockroaches and other insects.

Generally speaking, the objective was the general uplift in the standard of cleanliness, and the securing of better facilities for keeping kitchens and restaurants cleanly.

In the period 1920–24 five fish and chip shops and one butcher's shop were also closed. Speaking generally, the structure of restaurants and tea-shops to-day is satisfactory.

Cremation.

As showing the advance in the hygienic disposal of the dead, it is interesting to note that since the establishment in May, 1925, of the first crematorium at Rookwood there have been 8,555 cremations thereat; since the establishment of the Northern Suburbs Crematorium in October, 1933, 2,055 cremations thereat; at Woronora, since April, 1934, 503; a total of 11,113 cremations.

It is estimated that at present 20 per cent. of deceased are so hygienically disposed of in contrast to earth burial—another sign of the public becoming more health-conscious.

Metropolitan Milk Supply.

Until the advent of the Milk Board, considerable inspection was carried out with regard to the metropolitan dairies; thus, in 1920, in the Metropolitan area, there were licensed 337 dairymen with 3,954 cows, and 2,653 milk vendors.

In 1920 it was pointed out that in view of the recent researches in vitamines and the general consensus of opinion that these important accessory food factors are not present in the milk of cows fed on other than fresh pastures or fresh foods, such as Swede turnips, it is a moot point whether the metropolitan milk is really preferable to the country milk, and such preference falls to the ground where the extra-metropolitan milk produced from fresh pastures is distributed within twenty-four hours in the city. It was demonstrated during the milk strike in 1920 that some so-called metropolitan dairies depended on the country for their supply, either partially, or, in one case, at least, entirely. An investigation of the metropolitan milk supply shows that on the whole it is of fair quality, but there is room for considerable improvement as to the time taken in the process of pasteurisation and the more satisfactory and economic methods of its distribution.

Under the Milk Board there are 3,500 registered dairymen in the country, supplying 21,392,291 gallons of milk (including milk for sweet cream) to the metropolitan area from as far afield as Singleton in the north, and Nowra in the south.

There are also 480 suburban dairymen, supplying $7\frac{1}{2}$ to $7\frac{3}{4}$ million gallons per annum.

There are 600 vendors deriving their supply from the two distributing companies, both of which have up-to-date pasteurising and bottling plants.

There are also 3,850 shops in the metropolitan area selling milk.

In order to secure better milk, cheaper milk, more milk, and safer milk, I am of opinion that the amalgamation of the two distributing companies by the formation of a United Dairies Company, with the State holding 55 per cent. of the share capital, is the best solution of the milk problem.

In this way, pasteurised milk distributed once a day in bottles with supervision by veterinary supervisors in conjunction with the inspectors of the local authorities, would ensure further improvement in a milk supply which, speaking generally, is good.

STAFF.

The basic principles in satisfactory administration are unity of control, the prevention of overlapping and double-banking of work, and the definition, as far as possible, of each individual's sphere of work.

To sum up epigrammatically, " Never to put off till to-morrow what one can get someone else to do to-day." Complete each day's work, with a clear desk so that one may start the fresh day with its fresh problems, fresh.

In my multiplicity of duties I have delegated work, recognising there is no advantage in an over-meticulous mind over one which encourages initiative and resource in executive affairs.

The spirit of service has been improved, so that I have found the staff not only willing, but anxious to help, each doing his own specific work and not attempting to do that of others or to " cruel their pitches."

To Inspector Wormal I have especially been indebted for his judgment and experience, especially with regard to septic tanks and drainage problems; to Inspector Parsons for his keen devotion to duty and encyclopedic knowledge of sanitary law, and more recently, to Inspector Keith Horne, for his investigation of typhoid outbreaks.

To the late Mr. Benjamin Lloyd and his successor, Mr. W. Vogwell, I owe much for their application and practical knowledge of sanitation in their capacity as Chief City Health Inspector.

To all the staff of the City Council, and especially to the Town Clerk, Mr. Roy Hendy, and my former Chief Clerk, Mr. E. W. Adams, supported by Mr. Maitland, and more recently Mr. Cayzer, as Chief Clerk, I am indebted.

I especially am pleased that four former car drivers, whom I persuaded to take up and taught Public Health, Messrs. Neville, Dickman, Beeston, and R. Webb, are all in good inspectorial positions to-day.

Last, but not least, I have to thank Miss Crichton and Miss Ohlsson, City Council typistes, and Miss Donald, of the Department of Public Health.

2.—Hunter River Combined Sanitary District.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR ENDED 31ST DECEMBER, 1935.

Staff.—Dr. T. Lewis-Dunn, Medical Officer of Health; 1 Health Inspector, 1 Supervisory Nurse and 1 Clerk.

The District comprises 17 municipalities and 5 shires, together with the Harbour of Port Hunter.

Population.—The population of the district at the census of 30th June, 1933, was 209,465. The estimated population at the 31st December 1935, was 216,090, and the estimated mean population for 1935 was 214,850.

Births.—3,713 were registered in the district, equivalent to a rate of 17·28 per 1,000 of population. Of these births 1,889 were males and 1,824 females.

Ex-nuptial births numbered 146, being 3·93 per cent. of the total births.

Deaths numbered 1,907, equivalent to 8·88 per 1,000 of population.

Infantile mortality rate (deaths under one year of age per 1,000 births) was 39·86.

INFECTIOUS DISEASES.

Details of cases of notifiable infectious diseases are given below and in Table on page .

Diphtheria.—355 cases (7 deaths) were notified in 1935, compared with 547 (18 deaths) in 1934, and 446 (14 deaths) the annual average for the preceding five years. In many cases the disease was very mild, and diagnosis was made on bacteriological reports of throat swabs rather than on clinical evidence.

Of the cases notified towards the end of the year, "carriers" of *B. diphtheriae* were greatly in excess of those showing clinical signs and symptoms. At one stage over 70 per cent. of hospitalised cases showed no effects of the disease, but gave a positive throat swab.

That the particular strain of the organism involved was not always harmless to susceptible persons was shown by the fact that many "carriers" were definite contacts of cases with severe clinical evidence of the disease.

Scarlet Fever.—148 cases (1 death), compared with 209 cases (4 deaths) during 1934, and an annual average of 362 (5 deaths) for the preceding five years.

Typhoid Fever.—16 cases (2 deaths), compared with 18 cases (4 deaths) in 1934, and an annual average of 24 (5 deaths) for the preceding five years.

The incidence of typhoid fever reached a new record low figure (16), as compared with 18 in 1934. Seven of these cases occurred in Morpeth municipality during February, March, and April. Following this outbreak action was taken by the Board of Health, and sanitary conditions were much improved. At the same time Dr. Klein, Government Medical Officer, Morpeth, rendered valuable assistance by carrying out T.A.B. inoculations free of charge.

All the employees of the Bowthorne Milk Factory, Morpeth, which supplies milk for consumption in the metropolitan area, were inoculated, and 10 of them tested for the "carrier" state.

In all, 45 examinations for the presence of typhoid bacilli were carried out by a technician from the Microbiological Laboratory in Sydney.

These steps were taken in April, 1935, and up to 31st December no further cases were reported.

Infantile Paralysis.—21 cases (3 deaths), compared with 1 case (no death) in 1934. These 21 cases all occurred in the first four months of the year.

Encephalitis Lethargica.—2 cases (2 deaths).

Cerebro-spinal Meningitis.—No cases (no deaths).

Puerperal Infection.—16 cases (9 deaths), compared with 13 cases (7 deaths) in 1934.

Pulmonary Tuberculosis.—117 cases (60 deaths), as against 68 cases (68 deaths) in 1934. This increased figure is thought to be due to—

(1) The provision of better facilities for diagnosis. The Newcastle Dispensary has now arranged for the X-ray of contacts and suspected persons by the Newcastle Hospital.

(2) The good work of Dr. Byrne, the Medical Officer in Charge of the Dispensary, and the efforts of the Supervisory Nurse.

(3) The publicity given by Dr. John Hughes, of the Tuberculosis Division of the department, which has drawn the attention of medical practitioners to their responsibilities *re* notification.

These factors have led to more thorough investigation of contacts and others, with the result that many existing previously unsuspected cases have been diagnosed.

Venereal Diseases.—The value of the Venereal Diseases Clinic attached to Newcastle Hospital is again reflected in the increase of cases notified in 1935.

These diseases are not thought to be on the increase, consequently the greater number of notifications received is evidence that a larger proportion of persons contracting venereal diseases are presenting themselves for proper treatment. Notifications for the year numbered 315, and comprised: Gonorrhoea, 220; syphilis, 74; gleet, 21; compared with 209 notifications in 1934 (gonorrhoea, 128; syphilis, 81).

Attendances at the recently established public clinic totalled 14,629 (males 11,441; females, 3,188).

Infectious Diseases Hospital.—During the year construction of an Infectious Diseases Hospital at Newcastle was commenced, and its completion early in 1936 will relieve conditions at the isolation block of the local hospital, which, during past epidemics, have been a disgrace to the district.

Recent events, however, disclose that this new 60-bed hospital will not entirely meet the requirements of the district. Had the institution been functioning in December, 1935, it would have been called upon to accommodate some 125 cases, or double the number for which it is designed.

This is decidedly unfortunate, since, besides overcrowding, it means that severe cases of non-notifiable diseases, such as measles and whooping cough, may have to be refused admittance, yet the mortality from these diseases approaches that of those notifiable under the Public Health Act.

Private Hospitals at 31st December totalled 50, and 311 beds; and 93 inspections were made during the year.

Registered Midwifery Nurses numbered 202; and a total of 226 visits were made by the Supervisory Nurse.

General Inspections and Investigations carried out by the Sanitary Inspector comprised:—

Garbage depots	87
Sanitary depots	61
Slaughter yards	55
Noxious trade premises	247
Complaints	91
Septic tank plans	20
Dental investigations	14
Insanitary buildings	4
Other buildings inspected by request	16
Food shops	176
Food packages destroyed	2,487

An inspection of the sanitary conveniences at all hotels in the Newcastle and Maitland Licensing Districts, and a house-to-house inspection of the township of Morpeth was also undertaken.

Prosecutions instituted for breaches of the Public Health, Pure Foods, and Noxious Trades Acts and Regulations, and Local Government Act and Ordinances resulted in the collection of a total of £47 16s. in fines. One case was taken under the Dental Act, and two on behalf of the Nurses Registration Board, fines totalling £15 16s. being imposed.

Low-lying Areas.—The work of notifying under Section 55 (Public Health Act), sections of the foreshores of Lake Macquarie was not completed owing to the heavy calls upon the services of the Department's Surveying Inspector.

During 1935 much improvement was evident in the low-lying areas of Wickham and Smedmore, which were originally notified in 1924. Many houses and allotments were raised to a satisfactory level, and, following the completion of the Wickham box drain by the Department of Public Works, the local council led the way by raising its streets and footpaths.

General.—Following representations from this office, the Newcastle City Council decided to re-organise its Health Services, and a Chief Health Inspector was appointed to carry the proposals into effect.

The New South Wales Health Week Council has now extended its activities to Newcastle, and a "Health Week" will be inaugurated in 1936.

No immunisation against diphtheria was carried out by this office, except by special request of parents. A number of the local practitioners have advocated its use among their private patients, but the local councils have taken the view that immunisation should be the duty of the department and have, therefore, not carried out any prophylactic work of this nature.

Medical Examinations of pilots, entrants to the Public Service, applicants for pensions, surgical appliances, and admission to State hospitals and homes, etc., numbered 227.

3.—Broken Hill and District.

REPORT OF THE MEDICAL OFFICER OF HEALTH, W. E. GEORGE, M.B., CH.M., FOR THE YEAR ENDED 31ST DECEMBER, 1935.

The population of Broken Hill Municipal District at 30th June, 1935, was 26,734. The deaths numbered 273 (males, 175; females 98). There were 594 births for the twelve months, comprising 314 males and 280 females.

Infectious Diseases.—The monthly incidence of notifiable infectious diseases was as follows:—

	Typhoid and Paratyphoid.	Scarlet Fever.	Diphtheria.	Puerperal Infection.
January	2	2	2	...
February	3	1	2	...
March	2	2	...	...
April	1	4	...	...
May	1	3	...	...
June	...	1	...	...
July	...	...	1	...
August	...	1	1	...
September	...	1	...	...
October	...	...	3	...
November	2	2	...	...
December	...	...	...	...
Totals	11	17	9	...

Notifications of other infectious diseases were nil.

The incidence of notifiable infectious diseases at Broken Hill during the past five years is shown in the following table:—

	1931.	1932.	1933.	1934.	1935.
Typhoid and Paratyphoid Fever	109	20	8	10	11
Scarlet Fever	38	16	31	36	17
Diphtheria	52	32	27	42	9
Infantile Paralysis	4	6	...	...	...

The low incidence of notifiable infectious diseases noted in previous reports continues. The smaller number of typhoid fever notifications is highly satisfactory, and the few cases of diphtheria reported is also noteworthy.

The health of the city and district has been highly satisfactory during the twelve months; apart from a small epidemic of whooping cough during the year there is nothing worthy of note.

With the reopening of some mines, and increase of employment in others, the prosperity of the city has returned to some extent, and the outlook in hundreds of homes is brighter.

The State Laboratory has continued to carry out very useful service. The total number of examinations at the Laboratory for the year was 2,766, comprising 511 biochemical tests, 1,613 bacteriological, 541 haematological, and 101 pathological (tissue) investigations. In addition, 145 serological specimens were sent to Sydney for examination. All necessary culture media, swabs, etc., were prepared at the Laboratory.

WM. E. GEORGE,
Medical Officer of Health.

SECTION III.

Report upon the State Hospitals under the Control of the Director-General of Public Health.

1.—THE PRINCE HENRY HOSPITAL, SYDNEY: REPORT FOR THE YEAR 1935.

The Medical Superintendent to The Director-General of Public Health.

Sir,

I have the honour to submit the following Report on the working of the Prince Henry Hospital during the year 1935.

The Staff on 31st December, 1935, was as follows:—

THE HONORARY MEDICAL STAFF.

Honorary Consulting Physicians.

Lambie, Chas. George, M.C., M.D., F.R.C.P. (Edin.), F.R.S.E.
Millard, Reginald Jeffrey, C.M.G., C.B.E., M.B., Ch.M. (Syd.), D.P.H. (Camb.).

Honorary Consulting Surgeons.

Dew, Harold Robert, M.B., B.S. (Melb.), F.R.C.S. (Eng.), F.R.A.C.S., F.A.C.S.
Maguire, Frederick Arthur, M.B., Ch.M., M.D. (Syd.), F.R.C.S. (Eng.), F.R.A.C.S., Honorary Consultant Surgeon to Radium Clinic.
Susman, Maurice Philip, M.B., Ch.M. (Syd.), F.R.C.S. (Eng.), Honorary Consulting Thoracic Surgeon to P.H. Aux.

Honorary Physicians.

Blackburn, Charles Bickerton, O.B.E., B.A., M.D., Ch.M.
Bullmore, Herbert Henry, M.B., Ch.B. (Edin.), M.R.C.P. (Edin.).
Jeremy, Richard, M.B., Ch.M. (Syd.), M.R.C.P. (Lond.).
Molesworth, Edmund Harold, M.D., Ch.M., (Syd.), Honorary Dermatologist.
Rosebery, Sidney, M.D., M.R.C.P. (Edin.).
Wilson, Harold, M.D., Ch.M., M.R.C.P. (Lond.)

Honorary Surgeons.

Bettington, Reginald Henshall, M.B., M.R.C.S., L.R.C.P., Hon. Asst. Ear, Nose and Throat Surgeon.
Bullock, Howard, B.Sc. (Oxon.), M.B., Ch.M. (Syd.), L.R.C.P. (Lond.), F.R.C.S. (Eng.).
Darling, Harry C. Rutherford, M.D., M.S. (Lond.), F.R.C.S. (Eng.), F.R.S.P.S. (Glasg.).
Davies, Reginald Laidlaw, O.B.E. (M.), M.B., Ch.M. (Syd.), F.R.C.S. (Edin.), F.R.A.C.S., Honorary Gynaecological Surgeon.
Furber, Thomas Maynard, M.B., Ch.M., F.R.A.C.S.
Halliday, John Charles White, M.B., Ch.M. (Syd.), D.P.H. (Camb.), F.R.C.S. (Edin.), F.R.A.C.S., Hon. Ophthalmic Surgeon.
Johnston, Herbert Huff, M.B., Ch.M. (Syd.), Honorary Ear, Nose and Throat Surgeon.
Loewenthal, Louis Samuel, M.B., Ch.M., Acting Director of Radium Clinic.
Moran, Herbert Michael, M.B., Ch.M. (Syd.), F.R.C.S. (Edin.), F.R.A.C.S., Hon. Radium Therapeutist.
Parkinson, Philip, M.B., Hon. Radio Therapeutist.
Silverton, Robert Joseph, M.B., Ch.M. (Syd.), F.R.C.S. (Edin.), F.R.A.C.S., Hon. Urologist.
Storey, John Colvin, O.B.E., M.B., Ch.M. (Syd.), F.R.C.S. (Eng.), F.R.A.C.S.
Vickers, Wilfred, D.S.O., V.D., M.B., Ch.M. (Syd.), F.R.A.C.S., Hon. Orthopoedic Surgeon.
Wade, Robert Blakeway, M.D., Ch.M., F.R.A.C.S.
Walker-Smith, Angus Buchanan, M.B., Ch.M., F.R.C.S., Hon. Assistant Urologist.

Honorary Radiologists.

Dight, Wilfred Billingsley, M.B., Ch.M.
Tillett, Paul, M.B., Ch.M. (Syd.).

Honorary Anaesthetist.

Jones, Philip Sydney, Ch.M., M.B.

Honorary Physicist.

Love, William Henry, D.Sc. (Syd.).

Honorary Consulting Dentist.

Wallace, Ernest Stanley, B.D.Sc. (Syd.), D.D.Sc. (Melb.), Consulting Dental Surgeon.

Honorary Dentist.

Hughes, Clarence Henry, B.D.Sc., D.D.Sc., Honorary Dentist.

Resident Medical Staff.

Medical Superintendent.—Henri V. D. Baret, B.A., M.B.
Deputy Medical Superintendent.—Cecil J. M. Walters, M.B., Ch.M. (Syd.), F.R.A.C.S.
Senior Medical Officers.—Francis H. Hales Wilson, B.Sc., M.B. (Syd.); Norman J. Symington, M.B., Ch.M. (Syd.); Thomas John Ritchie, M.B., B.S. (Syd.)
Junior Medical Officers.—7.
Manager.—William M. Megarvey, J.P.
Matron.—Miss C. M. Burne.
Assistant Sub-Matron.—Miss M. A. R. Hall.
First Clerk.—William J. Gordon, M.C., J.P.
Sub-Matron.—Miss C. M. Dickson, R.R.C.
Dispenser.—Miss K. M. Legg.

I.—The following table is a comparative general statement for 1935 and the previous year :—

	1934.	1935.
Remaining in Hospital on 31st December	609	656
Admitted during the year	9,204	8,921
Total cases under treatment during the year	9,833	9,530
Discharges, including deaths	9,224	8,874
Deaths	630	587
Death-rate per cent. of total discharges	6·8	6·6
Average daily number of occupied beds	684	701·9
Average stay of patients (in days)	25·4	26·9

For the year the number of admissions was 283 less than in 1934, and the average daily number of occupied beds was 701·9, as against 684 in 1934. The average stay of patients was 26·9 days.

II. *Infectious Diseases.*—The following table summarises the work of the year in regard to these and affords a comparison with 1934. In this table the " cases " are cases treated until discharge or death and the fatality is reckoned on the total cases treated. Cases remaining in hospital on 31st December 1935, are not included in these figures for the year :—

	1934.			1935.		
	Cases.	Deaths.	Fatality.	Cases.	Deaths.	Fatality.
Typhoid Fever	10	...	...	7	1	14·3
Measles	89	7	7·7	370	18	4·9
Scarlet Fever	732	3	0·4	879	7	·8
Whooping-cough	148	32	21·6	7	...	...
Diphtheria	1,538	37	2·4	1,218	37	3·0
Influenza	92	2	2·1	124	4	3·2
Erysipelas	75	2	2·6	90	3	3·3
Other Epidemic Diseases	22	...	...	47	...	...

Typhoid Fever.—The number of cases under treatment was less than in 1934; the fatality was one.

Scarlet Fever.—Was more prevalent than in 1934—1,618 cases being notified in the whole Metropolitan area during 1935, as against 1,314 during 1934, and the cases treated at the Prince Henry Hospital showed a corresponding increase. There were 7 deaths.

Diphtheria.—In the Metropolis the cases notified amounted to 2,467 in 1935, as against 2,746 in 1934; and the cases treated at the Prince Henry Hospital were 1,218, as against 1,538, in 1934. The percentage of notified cases which came to this hospital for treatment was—in 1934, 59·04 per cent.; and in 1935, 49·3 per cent. Of the 37 fatal cases, 17 died within seven days of admission. No intubations were performed but there were 4 cases of tracheotomy.

Antitoxin was administered in the hospital to 2,021 cases in the doses shown in the following table :—

Antitoxin.	Cases.	Percentage of Total Cases.	Antitoxin.	Cases.	Percentage of Total Cases.
2,000 units	6	·29	42,000 units	...	...
4,000 ,,	81	4·00	44,000 ,,	...	...
6,000 ,,	50	2·42	46,000 ,,	...	...
8,000 ,,	390	14·30	48,000 ,,	...	...
10,000 ,,	382	18·90	50,000 ,,	54	2·67
12,000 ,,	177	8·75	52,000 ,,	...	...
14,000 ,,	8	·39	54,000 ,,	...	...
16,000 ,,	217	10·73	56,000 ,,	...	...
18,000 ,,	3	·14	58,000 ,,	...	...
20,000 ,,	359	17·76	60,000 ,,	29	1·43
22,000 ,,	2	·09	62,000 ,,	...	...
24,000 ,,	5	·24	70,000 ,,	...	...
26,000 ,,	...	...	80,000 ,,	7	·34
28,000 ,,	1	·04	90,000 ,,	3	·14
30,000 ,,	181	8·95	100,000 ,,	...	...
32,000 ,,	1	·04	110,000 ,,	1	·04
34,000 ,,	...	...	140,000 ,,	...	...
36,000 ,,	...	...			
38,000 ,,	...	...	Total	2,021	...
40,000 ,,	64	3·11			

Altogether 2,606 cases of typhoid fever, measles, scarlet fever, diphtheria, influenza, meningitis, whooping cough were treated. In the Appendix will be found some further details of these cases, viz. :—

Table III.—Age and sex distribution of cases discharged or died during the year.

Table IV.—Number of cases of diphtheria, scarlet fever, and typhoid notified within the Metropolis, and the percentage of these cases treated at the Prince Henry Hospital in each of the years 1916–1935, inclusive.

Table V.—Duration of stay in hospital of cases of typhoid fever, measles, scarlet fever, whooping cough and diphtheria.

Table VI.—Fortnightly admissions of all patients during 1935.

Table VII.—Classification of diseases treated during 1935.

Table VIII.—Operations performed during 1935.

Table XI.—Summary table showing the work of the Prince Henry Hospital and its cost each year from 1891 to 1935.

Summary of Abortion Cases treated at the Prince Henry Hospital, 1922–1935.

Abortion.—During the year 732 patients were treated for abortion. The admissions for this condition decreased last year as indicated by the following figures. The table also shows the ratio of abortion cases to all female cases treated in successive years 1922–1935, inclusive :—

Year.	Total Females Discharged or Died.	Number of abortion cases Discharged or Died.	Percentage of abortion cases to total Females.	How Discharged.				Fatality per cent of cases of abortion Discharged or Died.	No. of cases of abortion remaining at Hospital end of year.	Total cases treated including those in Hospital at end of year.
				Cured.	Re-lieved.	Unre-lieved.	Died.			
1922	3,387	345	10·18	329	11	1	4	1·16	9	354
1923	4,247	373	8·78	346	5	2	20	5·36	8	381
1924	4,343	436	10·03	420	9	3	4	·91	12	448
1925	4,556	470	10·31	455	8	...	7	1·49	27	497
1926	5,586	620	11·09	590	24	2	4	·64	10	630
1927	5,770	581	10·07	554	12	2	13	2·24	15	596
1928	5,267	572	10·86	543	15	4	10	1·75	...	572
1929	5,575	755	13·54	717	24	4	10	1·32	9	764
1930	6,090	887	14·56	824	43	4	16	1·8	18	905
1931	6,176	883	14·29	854	21	...	8	·91	21	904
1932	6,081	799	13·1	760	18	3	18	2·3	24	823
1933	5,540	699	12·6	658	15	2	14	2·0	15	714
1934	5,304	927	17·14	888	14	4	26	2·8	19	946
1935	5,041	718	14·24	689	17	1	11	1·57	14	732

Expenditure.—Table IX gives a detailed statement of the working expenses for 1934 and 1935, from which it will be seen that the total expenditure increased from £109,682 11s. 11d. in 1934, to £116,148 14s. 5d. in 1935, and the average cost per occupied bed increased from £160 7s. 1d. to £165 9s. 6d.

Instruction by lectures and demonstrations was, as usual, given to the nurses and attendants by the Medical Staff and Matron; and in invalid cookery by a specially engaged teacher (Miss Shepherd) as in former years. Examinations were held in accordance with regulations, and passes were as follows :—

First-year examination	Nurses, 24	Attendants,	4
Second-year ,, ...	,, 51	,,	1
Thir -year ,, ...	,, 44		
Fourth-year ,, ...	,, 52		

During the year 50 certificated nurses left the hospital to take up private nursing, or to take positions in other hospitals, whilst 50 nurses passed the Nurses Registration Board Examination in General Nursing.

Sick leave was granted to 156 nurses, amounting in the aggregate to 3,116 days. Of these nurses some were ill on more than one occasion, there being 202 cases of illness altogether. Of the sick nurses 8 had diphtheria, 410 days; 4 had scarlet fever, 165 days. All recovered satisfactorily.

Laboratory.—The following Table summarises the work done in the hospital laboratory month by month. In all, 13,595 cultures were examined for diphtheria. The practice was continued of accepting no diphtheria culture as negative unless found so after forty-eight hours incubation.

1935.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cultures examined for diphtheria—													
(1) After 12–24 hours incubation	53	42	65	92	133	45	95	49	81	74	90	43	862
(2) After 48 hours incubation	904	950	1,324	1,441	1,131	1,285	1,137	879	1,322	1,149	1,042	1,031	13,595
Blood Counts—Full	33	20	42	29	30	29	15	18	11	21	23	29	300
Red Cells and hb. ...	42	25	26	38	38	42	43	43	44	62	45	27	475
Leucocytes	46	37	46	35	50	52	45	51	43	56	40	49	550
Parasites, etc.	8	...	3	14	2	4	4	12	11	18	4	6	86
Bleeding and coagulation time	3	6	8	5	3	7	5	10	6	...	4	12	69
Blood Cultures	12	6	9	7	4	8	7	9	16	8	7	9	102
Widals.....................	6	...	4	3	1	5	2	4	5	2	2	1	35
Sugar	64	114	53	134	164	145	181	99	110	156	124	109	1,453
Typing and matching ..	12	6	13	12	13	11	28	9	9	5	6	12	136
Biochemical Tests ...	...	...	...	2	...	6	2	4	...	9	3	3	29
Fluids—Cerebro-spinal	7	5	6	9	11	7	4	17	9	3	9	8	95
Body and joint	6	5	4	2	5	9	5	11	10	4	5	9	75
Faeces	25	24	40	32	40	39	30	26	36	43	31	36	402
Pus—For organisms, etc.......	24	18	16	18	26	15	11	15	19	14	25	20	221
Smears–Gonococci	38	33	33	38	33	17	23	14	18	27	34	19	327
Leprosy..................	...	...	8	8	46	36	34	...	6	8	36	...	182
Vincent's Angina, etc.	11	2	13	5	8	13	14	20	26	38	21	31	202
Dark field examination for Tr. Pallidum	2	4	2	...	1	1	1	...	2	...	2	1	16
Hairs and Scales for fungi ...	5	2	1	7	4	1	6	2	3	8	7	...	46
Sputum for T.B.	141	134	115	100	240	280	287	193	190	133	134	133	2,080
Urine—Organisms, pus, etc. ..	44	65	68	67	43	40	50	39	67	66	44	83	676
Deposits only	106	92	119	159	195	167	235	215	274	276	186	198	2,222
Chemical	13	70	71	110	50	84	61	46	60	119	78	43	805
Vaccines prepared	21	11	11	7	16	12	11	9	6	6	5	12	127
Swabbings for Haemolytic Streptococci	2	27	33	34	26	23	19	36	32	73	66	112	483
B.M.R. tests	8	11	11	4	3	14	7	7	6	10	12	8	101
Test meals	18	20	22	20	23	21	24	23	27	32	26	19	275
	1,654	1,729	2,166	2,432	2,339	2,418	2,386	1,860	2,449	2,420	2,111	2,063	26,027

X-RAY DEPARTMENT.

Examinations Carried out in X-Ray Department during 1935.

Renal tracts (including retrograde, intravenous and pneumopyelography), 509; skulls (including sinuses, mastoids, encephalography, etc.), 637; cholecystography, 248; chests, 1,407; fractures, 452; bone diseases, 774; foreign bodies, 29; barium meals, 409; barium enemas, 125; teeth, 107.

RADIUM CLINIC.

The following cases were treated during 1935:—Skin cancer, 40; cervix of uterus cancer, 17; body of uterus cancer, 1; tongue cancer, 3; breast cancer, 2; parotid gland cancer, 2; thyroid gland cancer, 1; lymph gland cancer, 3; vulva cancer, 1; for menorrhagia, 3; total 73.

THE PRINCE HENRY HOSPITAL.

On 31st December, 1935, there were twenty-four occupied wards at the Prince Henry Hospital. These provided accommodation for 707 patients. Five wards were unoccupied. In addition, four wards at the Prince Henry Hospital Auxiliary, Randwick, provide 120 beds for patients suffering from pulmonary tuberculosis.

Wards III and IV in the old "Coast" Division are at present occupied as out-patients' department and dispensary, respectively, pending the completion of the new administrative block, which is expected to be ready about 30th June, 1936.

Wards XI and XVII are empty, in preparation for their demolition, to provide a site for an up-to-date diphtheria block. The new scarlet fever block, containing 50 beds, has been occupied temporarily since 17th December, 1935, to accommodate diphtheria patients.

Ward XXII hitherto used as a nurses' quarters has been vacant since October, 1935, when the nurses were moved to the new nurses' home. When certain structural alterations are carried out and equipment provided this ward will accommodate fifty additional surgical patients.

Two new medical blocks are now nearing completing. One of these buildings will provide accommodation for 180 patients, the second for 160 cases—one ward being set aside for use as a sick ward for nurses. The two blocks, each of three stories, are each divided into six wards, containing 30 beds.

In addition to the two existing operating theatres—one at the "Coast" and one at the surgical division—a new operation block containing two theatres has recently been completed, but pending its equipment is not yet in use.

A urological block, to contain a theatre, X-ray plant, etc., is now nearing completion.

In addition to the X-ray department a new department for the administration of radio therapeutics has been in full use since early in December. During the month twelve cases were treated.

The recently completed laboratory has been occupied, but is not yet fully staffed. It is hoped that this department will be in full use early in the New Year.

The administrative and out-patients' block is under construction. Meanwhile the out-patients' department and dispensary are carrying on in Wards III and IV. The activities of the out-patient's department have greatly increased, there having been 17,539 visits during 1935.

The new nurse's home, providing accommodation for 225 nurses, which was partially occupied in 1934, now accommodates 90 nurses. The new staff kitchen, built in conjunction with the nurses' home, though completed, is not yet in use, pending the provision of additional staff. The change over to this kitchen will probably be deferred until the new general kitchen, now nearing completion, is taken over and equipped.

Work performed by Hospital Staff.

Repair and maintenance of laundry machinery, hot water and steam services.

Repairs and maintenance of electrical services and equipment.

Repair and maintenance of sterilizers and other equipment, including surgical instruments, etc.

Repair and renovation of hospital furniture and appliances.

Minor alterations and additions to buildings, etc.

Care of grounds, gardens, fencing, etc.

Glazing, painting of buildings, vehicles, etc.

TABLE I.—General Statement of the working of the Hospital from 1st January to 31st December, 1935.

	No. of Beds, 1935.
Number of beds available in the General Division on 31st December, 1935	436
Number of beds available in the Infectious Division	266
,, ,, Nurses' Sick Room	5
Prince Henry Hospital Auxiliary, Randwick	120
Total accommodation	827

	Males.	Females.	Total.
Number of inmates remaining in hospital on 31st December, 1934	379	230	609
,, admitted during the year 1935	3,831	5,090	8,921
Total treated	4,210	5,320	9,530
Discharged—Cured	2,261	3,739	6,000
,, Relieved	1,061	892	1,953
,, Unrelieved	130	166	296
No Disease	16	22	38
Died	365	222	587
Total number discharged, or who died	3,833	5,041	8,874
Remaining in hospital on 31st December, 1935	377	279	656

Average daily number resident	701·9
Average residence of discharged patients in days	26·9
Rate of mortality on total number who were discharged or who died	6·6
Total cost of maintenance and treatment of indoor patients	£116,148 14s. 5d.
Average cost of patients per annum	£165 9s. 6d.

	Males.	Females.	Total Visits.
Out-patients—			
Total number of visits for year 1935	8,403	9,136	17,539

Hospital Staff on 31st December, 1935.

Medical and Administrative.	Number.	Nursing.	Number.	General.	Number.
Medical Superintendent	1	Sub-Matron	1	Gardeners	3
Deputy Medical Superintendent	1	Asst. Sub-Matron	1	Motor Drivers	2
Pathologist	1	Sisters, Senior	10	Overseer	1
Senior Medical Officers	3	,, Junior	9	Engineer	1
Junior ,, ,,	6	Nurses, Staff	18	Painters	2
Manager	1	,, Trained	29	Plumber	1
Matron	1	,, Pupil	194	Carpenters	3
Dispensers	4			Electrician	1
,, Assistants	2	Ward Attendants	31	Firemen	3
Clerks	11	Housekeeper	1	Fitter	1
Laboratory Assistants	2	Masseuse	2		
X-Ray Technician	1			Outdoor Attendants, etc.	22
,, Assistant	1		296	Telephone ,,	5
Storekeeper	1			Cooks, Male	3
				,, Female	5
Total	36			Laundry, Male	6
				,, Female	13
				Chaplains	2
				Seamstress	3
				Female Servants	82
					159
				Total Staff	491

Table II.—Return showing the number of Wards, together with the cubic space and number of beds in each Ward, in the General and Infectious Divisions of the Prince Henry Hospital for the year 1935.

Ward.	Cubic Space.	No. of Beds.	Cubic space per Bed in Ward.	Ward.	Cubic Space.	No. of Beds.	Cubic Space per Bed in Ward.
1 and 2	77,788	67	1,146	*17	16,915	...	...
5 and gallery	31,368	24	1,307	†New Block	57,840	50	1,157
6	10,800	8	1,350	18 and verandah	53,062	50	1,061
7	10,800	8	1,350	19 and verandah	53,062	51	1,040
8 and gallery	32,268	26	1,241	20 and verandah	53,062	50	1,061
9	12,000	8	1,500	21 and verandah	53,062	50	1,061
10 and N. Sick Room	16,356	18	909	23 and verandah	53,062	50	1,061
11*	22,320	...	......	24	19,023	26	732
12	23,880	29	823	25	19,023	26	732
13	28,236	39	724	26	19,023	26	732
14	43,520	28	1,554	27	19,023	26	732
15	28,296	31	912				
16	11,520	16	720	Total	765,309	707	969 (average)

* Closed pending demolition.

† Temporarily used to accommodate Diphtheria cases in place of Wards 11 and 17.

The Prince Henry Auxiliary, Randwick.

Ward.	Cubic Space.	No. of Beds.	Cubic space per Bed.
22	23,415	24	975
23	23,415	24	975
24	23,415	24	975
26	23,415	24	975

*These figures do not include 6 beds on the verandah of each ward.

TABLE III.—Discharges and Deaths during 1935, distributed under sex and age.

Age.	0–5		6–10		11–15		16–20		21–30		31–40		41–50		51–60		61–70		71–80		81–90		Total sexes.		Total cases treated.	Total deaths.	Mortality per cent.
Sex.	M	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Male.	Female.			
1. *Infectious Diseases*—																											
Typhoid Fever—																											
Discharges	...	...	...	1	...	...	...	...	3	1	1	...	...	...	...	...	...	...	...	...	...	...	4	2	7	1	14·28
Deaths	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...			
Measles—																											
Discharges	106	103	41	37	8	11	5	7	5	23	2	2	1	1	...	...	...	...	...	...	...	...	168	184	370	18	4·87
Deaths	10	7	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	7			
Scarlet Fever—																											
Discharges	136	149	108	185	26	69	11	29	20	68	17	36	3	8	1	4	1	1	...	...	...	...	323	549	879	7	·68
Deaths	1	1	1	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...	4	3			
Whooping Cough—																											
Discharges	1	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	7	...	...
Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Diphtheria—																											
Discharges	261	263	177	185	37	80	9	31	21	63	14	28	2	6	...	2	1	1	...	...	...	...	522	659	1,218	37	3·03
Deaths	16	8	2	9	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	19	18			
Influenza—																											
Discharges	...	...	...	...	3	...	4	...	4	84	2	6	5	3	3	5	1	...	...	...	...	...	22	98	124	4	3·22
Deaths	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1	...	...	...	...	...	3	1			
Plague—																											
Discharges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Cerebro-spinal Meningitis—																											
Discharges	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...
Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
2. *Other Diseases*—																											
Discharges	97	98	91	62	164	135	224	337	497	1,077	390	648	398	480	301	298	192	135	60	53	11	...	2,425	3,323	6,268	520	8·29
Deaths	4	2	2	2	4	2	8	14	22	28	48	34	64	41	85	34	65	27	23	9	2	...	327	193			
Totals	632	634	425	482	243	297	261	418	574	1,346	476	754	473	540	392	344	261	164	83	62	13	...	3,833	5,041	8,874	587	6·61

Table IV.—Showing Number of Cases of Diphtheria, Scarlet Fever, and Typhoid Fever notified within the Metropolis, and the percentage of these cases treated at the Prince Henry Hospital, in each of the years 1921-1935 inclusive. (These figures include cases outstanding at end of year.)

	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
Diphtheria.															
Cases notified in Metropolis	2,916	1,807	1,722	2,115	1,626	2,048	2,112	2,028	2,124	1,938	1,873	2,049	2,067	...	2,467
Cases treated at Prince Henry Hospital	1,360	905	854	1,115	787	1,018	997	1,123	1,111	1,180	1,033	1,231	1,273	1,621	1,218
Percentage	46·6	50	49·5	52·7	48·4	49·7	47·2	53·8	52·3	60·8	55·1	60·07	62·07	...	49·37
Scarlet Fever.															
Cases notified in Metropolis	511	653	1,541	2,241	1,916	3,424	5,840	3,729	3,418	2,980	3,180	3,032	2,690	...	1,618
Cases treated at Prince Henry Hospital	174	229	622	1,045	842	1,668	2,183	1,723	1,572	1,516	1,526	1,740	1,607	790	879
Percentage	34	35	40·4	46·6	43·9	48·7	37·4	46·2	46·0	52·5	51·1	57.38	59·7	...	54·32
Typhoid Fever.															
Cases notified in Metropolis	342	246	265	242	230	245	184	133	185	118	88	104	...	...	95
Cases treated at Prince Henry Hospital	49	33	51	8	50	60	33	22	53	27	27	26	16	11	7
Percentage	14·3	13·4	19·2	23·9	21·7	24·4	18	16·6	28·6	22·9	22·9	25	35·2	...	7·37

Table V.—Duration of Stay in Hospital of cases of Typhoid Fever, Measles, Scarlet Fever, Whooping Cough, and Diphtheria.

Duration of Stay.	Typhoid Fever.			Measles.			Scarlet Fever.			Whooping Cough.			Diphtheria.		
	Cured.	Died.	Total.	Cured.	Died.	Total.	Cured.	Died.	Total.	Cured.	Died.	Total.	Cured.	Died.	Total.
1 week or less	...	...	...	50	3	53	11	3	14	...	...	...	27	17	44
1— 2 weeks..	1	1	2	117	6	123	6	1	7	3	...	3	76	13	89
2— 3 „ ...	...	...	...	110	5	115	29	...	29	3	...	3	460	2	462
3— 4 „ ...	1	...	1	42	4	46	184	...	184	...	...	...	285	2	287
4— 5 „ ...	...	...	...	10	...	10	403	1	404	1	...	1	151	1	152
5— 6 „ ...	1	...	1	3	...	3	128	...	128	...	...	...	82	...	82
6— 7 „ ...	1	...	1	9	...	9	41	2	43	...	...	...	41	...	41
7— 8 „ ...	2	...	2	3	...	3	20	...	20	...	...	...	32	1	33
8— 9 „ ...	...	...	...	2	...	2	9	...	9	...	...	...	9	...	9
9—10 „ ...	...	...	...	2	...	2	10	...	10	...	...	...	7	1	8
10—11 „ ...	...	...	...	...	...	...	6	...	6	...	...	...	2	...	2
11—12 „ ...	...	...	...	...	...	...	3	...	3	...	...	...	1	...	1
12—13 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
13—14 „ ...	...	...	...	...	...	...	3	...	3	...	...	...	2	...	2
14—15 „ ...	...	...	...	2	...	2	3	...	3	...	...	...	...	...	...
15—16 „ ...	...	...	...	1	...	1	2	...	2	...	...	...	...	...	...
16—17 „ ...	...	...	...	1	...	1	2	...	2	...	...	...	...	...	...
17—18 „ ...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...
18—19 „ ...	...	...	...	...	...	...	2	...	2	...	...	...	2	...	2
19—20 „ ...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
20—21 „ ...	...	...	...	...	...	...	3	...	3	...	...	...	...	...	...
21—22 „ ...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
22—23 „ ...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1
23—24 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24—25 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25—26 „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Over 26 „ ...	...	...	...	...	...	...	2	...	2	...	...	...	1	...	1
Total ...	6	1	7	352	18	370	872	7	879	7	...	7	1,181	37	1,218

Table VI.—Fortnightly Admissions of cases during 1935.

Disease.	Fortnight ending—																										Total.
	Jan.		Feb.		Mar.		Apr.		May.		June.			July.		Aug.		Sept.		Oct.		Nov.		Dec.			
	14	28	11	25	10	24	7	21	5	19	2	16	30	14	28	11	25	8	22	6	20	3	17	1	15	31	
Typhoid Fever.	...	...	...	...	...	...	1	2	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	5
Measles ...	2	4	4	4	5	8	10	3	8	17	19	12	17	23	25	29	32	25	24	19	25	20	9	16	14	11	385
Scarlet Fever.	24	33	23	30	26	26	25	25	27	15	25	28	28	55	24	38	51	61	55	64	59	58	51	73	23	28	975
Whooping Cough.	2	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Diphtheria	42	29	55	61	51	80	106	74	48	38	64	46	52	58	103	21	20	48	37	31	27	30	25	27	22	12	1,207
Influenza ...	2	4	1	...	2	2	2	4	...	3	6	4	18	28	10	11	6	8	4	3	1	1	1	2	1	...	124
Other Diseases.	195	221	229	252	236	273	199	208	195	213	278	268	238	173	178	214	256	258	222	221	201	217	295	366	305	308	6,219
Total ...	267	293	318	348	320	389	343	316	278	286	392	358	353	337	341	313	365	401	342	338	313	326	381	484	365	359	8,921

TABLE VII.—Return of the Number of Persons under Treatment, the Order of Disease for which they were treated, and the Number of Deaths in each order during the year 1935. (Includes cases remaining in Hospital on 31st December, 1934.)

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
CLASS 1.—PARASITIC AND INFECTIOUS DISEASES.							
1. Typhoid Fever	4	...	...	1	...	5	44·8
2. Paratyphoid Fever	...	...	...	...	...	...	...
3. Typhus Fever	2	...	...	...	...	2	18·0
4. Relapsing Fever	...	...	...	...	...	...	...
5. Undulant Fever	...	...	...	...	...	...	...
6. Smallpox	...	...	...	...	...	...	...
7. Measles	350	2	...	18	26	396	16·6
8. Scarlet Fever	868	4	...	7	154	1,033	37·1
9. Whooping Cough	6	1	...	...	...	7	18·2
10. Diphtheria	1,178	3	...	37	72	1,290	30·4
11. Influenza—							
(*a*) With specified respiratory complications	23	3	...	3	...	29	12·7
(*b*) Without specified respiratory complications	93	1	...	1	1	96	7·7
12. Cholera	...	...	...	...	...	...	...
13. Dysentery—							
(*a*) Amoebic	...	1	...	...	...	1	38·0
(*b*) Bacillary	...	...	...	...	...	...	...
(*c*) Other	...	...	...	...	...	...	...
14. Plague	...	...	...	...	...	...	...
15. Erysipelas	81	6	...	3	6	96	13·7
16. Acute poliomyelitis	2	...	...	...	...	2	225·5
(*a*) Acute poliomyelitis (infantile paralysis)	...	...	...	...	...	...	...
(*b*) Acute polioencephalitis	...	...	...	...	...	...	...
17. Epidemic of Lethargic Encephalitis	...	...	...	...	...	...	...
18. Epidemic Cerebro-spinal Meningitis	1	...	...	...	...	1	19·0
19. Glanders	...	...	...	...	...	...	...
20. Anthrax, malignant pustule	...	...	...	...	...	...	...
21. Rabies	...	...	...	...	...	...	...
22. Tetanus	1	...	...	1	...	2	10
23. Tuberculosis of Respiratory System	4	98	37	180	107	426	129·5
24. Tuberculosis of Meninges and Central Nervous System	1	...	1	...	1	3	23
25. Tuberculosis of Intestine and Peritoneum	...	1	1	...	...	2	34
26. Tuberculosis of Vertebral Column	...	4	...	...	3	7	676·2
27. Tuberculosis of other Bones and Joints	1	6	...	...	1	8	204·7
28. Tuberculosis of Skin and Subcutaneous Cellular Tissue	...	...	...	...	...	...	...
29. Tuberculosis of Lymphatic System (Abdominal and Bronchial Glands excepted)	1	1	...	...	...	2	33
30. Tuberculosis of Genito Urinary System	1	5	1	...	2	9	27·1
31. Tuberculosis of other Organs	...	...	1	...	...	1	132·0
32. Dessimated Tuberculosis—							
(*a*) Acute	...	...	...	...	...	...	...
(*b*) Chronic	...	...	...	...	...	...	...
(*c*) Unspecified	...	...	...	...	...	...	...
33. Leprosy	...	...	...	...	...	...	...
34. Syphilis	1	50	3	4	7	65	51·8
35. Gonococcus Infection and other Venereal Diseases	16	163	2	1	21	203	40·2
36. Purulent Infection and Septicaemia (non-puerperal)	...	...	...	2	...	2	19·5
37. Yellow Fever	...	...	...	...	...	...	...
38. Malaria	...	2	...	...	...	2	10·5
39. Other Diseases due to Protozoal Parasites	...	...	...	...	...	...	...
40. Ankylostomiasis	...	...	...	...	...	...	...
41. Hydatid Cysts	1	1	...	...	1	3	131·0
(*a*) Of the Liver	...	...	...	...	...	...	...
(*b*) Of other Organs	...	...	...	...	...	...	...
42. Other Diseases caused by Helminths	1	...	...	...	...	1	81·0
43. Mycoses	...	...	...	...	...	...	...
44. Other Infections or Parasitic Diseases	...	...	...	...	...	...	...
(*a*) Erythroedema (Pink Disease)	16	1	...	...	...	17	17·7
(*b*) Other diseases under this title	44	2	1	...	1	48	11·5
Total, Class 1	2,696	355	47	258	403	3,759	...
CLASS 2.—CANCER AND OTHER TUMOURS.							
45. Cancer, etc., of the Buccal Cavity and Pharynx	4	11	7	4	...	26	31·7
46. Cancer, etc., of the Digestive Tract and Peritoneum—							
(*a*) Oesophagus	...	1	7	11	...	19	24·5
(*b*) Stomach and Duodenum	...	4	7	7	3	21	22·4
(*c*) Rectum	...	3	1	4	1	9	33·3
(*d*) Liver and Billiary Ducts	...	1	...	...	...	1	32·0
(*e*) Pancreas	...	1	...	...	...	1	35·0
(*f*) Peritoneum	...	...	...	...	...	...	...
(*g*) Intestines	...	5	2	7	1	15	39·3
(*h*) Other Organs	...	4	1	2	...	7	21·5
47. Cancer of the Respiratory System	...	2	2	5	...	9	40·1
48. Cancer of the Uterus	...	18	3	2	3	26	26·1
49. Cancer of other Female Genital Organs	...	11	7	...	1	19	31·4
50. Cancer of the Breast	2	9	10	3	1	25	21·9
51. Cancer of the Male Genito-urinary Organs	...	7	3	2	2	14	69·2

TABLE VII.—Return of the Number of Persons under Treatment, etc.—*continued.*

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
CLASS 2—CANCER AND OTHER TUMORS—*continued.*							
52. Cancer of the Skin	18	19	3	...	...	40	16·4
53. Cancer of other or unspecified Organs	...	9	5	2	...	16	36·0
54. Non-malignant Tumours—							
(*a*) Female Genital Organs	6	2	1	...	...	9	18·1
(*b*) Brain	...	...	...	...	...	...	...
(*c*) Other Organs	6	6	1	...	...	13	11·3
55. Tumours, nature not specified—							
(*a*) Female Genital Organs	...	...	...	...	...	...	...
(*b*) Brain	...	...	...	...	...	...	...
(*c*) Other Organs	9	9	4	3	...	25	22·7
Totals, Class 2	45	122	64	52	12	295	...
CLASS 3.—RHEUMATIC DISEASES, DISEASES OF NUTRITION, OF ENDOCRINE GLANDS, AND OTHER GENERAL DISEASES.							
56. Acute Rheumatic Fever	17	7	...	2	1	27	41.0
57. Chronic Rheumatism, Osteo-arthritis—							
(*a*) Chronic Rheumatism	3	7	...	...	...	10	47·8
(*b*) Rheumatoid Arthritis and Osteo-arthritis	5	44	1	...	8	58	43·4
58. Gout	1	2	...	...	1	4	23·3
59. Diabetes Mellitus	6	125	...	19	15	165	34·5
60. Scurvy	...	...	...	...	...	...	...
61. Beri-beri	...	...	...	...	...	...	...
62. Pellagra	...	...	...	...	...	...	...
63. Rickets	...	...	1	...	1	2	12.0
64. Osteomalacia	...	...	...	...	...	...	...
65. Diseases of the Pituitary Gland	...	...	...	...	...	...	...
66. Diseases of the Thyroid and Parathyroid Glands—							
(*a*) Exophthalmic Goitre	6	11	7	3	4	31	27·6
(*b*) Other diseases of the Thyroid Gland	1	5	...	...	...	6	18·1
(*c*) Diseases of the Parathyroid Gland	...	...	...	...	...	...	...
67. Diseases of the Thymus Gland	...	...	...	...	...	...	...
68. Diseases of the Adrenals (Addison's Disease)	...	...	...	...	...	...	...
69. Other General Diseases	...	...	...	...	...	...	...
Total, Class 3	39	201	9	24	30	303	...
CLASS 4.—DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS.							
70. Haemorrhagic Conditions	...	3	...	...	...	3	52·3
71. Anaemia, Chlorosis—							
(*a*) Pernicious Anaemia	...	14	...	2	2	18	43·3
(*b*) Other Anaemias and Chlorosis	...	4	1	2	1	8	45·8
72. Leucaemia, Lymphadenoma —							
(*a*) Leucaemia	...	1	1	2	...	4	10·7
(*b*) Aleucaemia (Hodgkins Disease)	...	...	...	...	...	...	...
73. Diseases of the Spleen	1	...	...	...	...	1	63.0
74. Other Diseases of the Blood and Blood-forming Organs	...	1	...	...	2	3	6.0
Total, Class 4	1	23	2	6	5	37	...
CLASS 5.—CHRONIC POISONINGS AND INTOXICATIONS.							
75. Alcoholism—Acute and Chronic	3	4	2	1	...	10	7·5
76. Chronic Poisoning by Other Organic Substances	2	...	...	...	...	2	39·5
77. Chronic Poisoning by Mineral Substances—							
(*a*) Occupational Lead Poisoning	...	...	...	...	...	...	...
(*b*) Other	1	1	...	...	...	2	28·5
Total, Class 5	6	5	2	1	...	14	...
CLASS 6.—DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE.							
78. Encephalitis (not epidemic)—							
(*a*) Cerebral abscess	...	...	...	...	...	...	...
(*b*) Others	1	1	1	...	...	3	26
79. Meningitis—							
(*a*) Simple Meningitis	1	...	...	5	...	6	83·3
(*b*) Non-epidemic Cerebro-spinal Meningitis	...	...	...	1	...	1	2
80. Progressive Locomotor Ataxia	...	1	...	...	...	1	40·0
81. Other Diseases of the Spinal Cord	...	...	1	...	...	1	156·0
82. Cerebral Haemorrhage, Embolism or Thrombosis —							
(*a*) Cerebral Haemorrhage	4	2	1	4	...	11	29·3
(*b*) Apoplexy (lesion unstated)	...	...	...	...	...	...	...
(*c*) Cerebral Embolism	...	...	...	1	...	1	2.0
(*d*) Cerebral Thrombosis	...	2	...	6	1	9	17·8
(*e*) Softening of the Brain	...	...	...	...	...	...	...
(*f*) Hemiplegia and Paralysis without specified cause	...	1	...	...	1	2	87·0
83. General Paralysis of the Insane	...	1	...	...	...	1	23.0
84. Dementia Praecox and other Psychoses	...	1	5	...	...	6	15·3
85. Epilepsy	1	12	2	...	...	15	19·7

Table VII.—Return of the Number of Persons under Treatment, etc.—*continued.*

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
Class 6.—Diseases of the Nervous System and Organs of Special Sense—*continued.*							
86. Convulsions of Infants under 5 years of age	...	1	...	...	...	1	45·0
87. Other Diseases of the Nervous System—							
(*a*) Chorea	3	2	...	...	...	5	69·8
(*b*) Neuralgia and Neuritis	9	12	...	...	2	23	28·7
(*c*) Paralysis Agitans	...	...	...	...	...	...	...
(*d*) Disseminated Sclerosis	...	...	...	...	...	...	...
(*e*) Idiocy, imbecility	...	...	...	...	...	...	...
(*f*) Other Diseases	4	35	11	1	4	55	20 6
88. Diseases of the Organs of Vision	9	9	6	...	1	25	19·7
89. Diseases of the Ear and Mastoid Process	58	21	...	...	2	81	35·9
Total, Class 6	90	101	27	18	11	247	...
Class 7—Diseases of the Circulatory System.							
90. Pericarditis	...	...	...	...	...	...	...
91. Acute Endocarditis—							
(*a*) Malignant Endocarditis	...	...	...	4	...	4	32·7
(*b*) Other Acute Endocarditis	...	1	...	1	...	2	19·5
92. Chronic Endocarditis, Valvular Disease—							
(*a*) Aortic valve Disease	...	8	1	3	...	12	44·2
(*b*) Mital Valve Disease	...	11	...	2	1	14	47·7
(*c*) Aortic and Mitral Valve Disease	1	3	...	...	...	4	21
(*d*) Endocarditis not returned as Acute or Chronic	...	...	...	...	...	...	...
(*c*) Other Unspecified Valve Disease; Chronic Endocarditis	...	...	...	...	...	...	...
93. Diseases of the Myocardium—							
(*a*) Acute myocarditis	1	18	...	5	...	24	37·4
(*b*) Fatty Heart	...	...	...	1	...	1	1·0
(*c*) Chronic Myocarditis and Myocardial degeneration	2	29	...	22	10	63	31·0
(*d*) Not specified	...	...	...	...	...	...	...
94. Diseases of the Coronary Arteries and angina pectoris—							
(*a*) Diseases of the Coronary Arteries	...	2	...	2	2	6	42·5
(*b*) Angina Pectoris	1	1	1	...	...	3	32·0
95. Other Diseases of the Heart—							
(*a*) Disordered Action of the Heart	1	2	...	1	...	4	21·0
(*b*) Cardiac Dilatation (cause unspecified)	...	1	...	...	...	1	40·0
(*c*) Heart Disease (undefined)	...	3	...	2	...	5	20·8
96. Aneurysm (other than of the Heart)	...	2	1	2	...	5	14·6
97. Arterio-sclerosis (of Coronary Arteries excepted)—							
(*a*) With record of Cerebro-vascular lesion	3	16	1	16	...	36	19 4
(*b*) Without record of Cerebro-vascular lesion	2	34	3	12	...	51	25 5
98. Gangrene	...	...	...	...	...	...	...
99. Other Diseases of the Arteries	...	5	...	...	...	5	51·0
100. Diseases of the Veins (Varices, Haemorrhoids, etc.)	31	16	3	...	1	51	20·9
101. Diseases of the Lymphatic System, Lymphangitis, etc.	2	1	...	...	2	5	23·6
102. Idiopathic Abnormalities of Blood Pressure	...	...	...	...	...	...	...
103. Other Diseases of the Circulatory System	1	3	...	...	...	4	8·2
Total, Class 7	45	156	10	73	16	300	...
Class 8.—Diseases of the Respiratory System.							
104. Diseases of the Nasal Fossae and Annexa	99	56	5	...	2	162	11
105. Diseases of the Larynx	7	...	1	...	...	8	11·2
106. Bronchitis—							
(*a*) Acute	17	8	...	1	...	26	14·2
(*b*) Chronic	6	22	...	1	2	31	20·4
(*c*) Unspecified (under 5 years of age)	...	...	...	...	...	...	...
(*d*) Unspecified (5 years of age and over)	...	...	...	...	...	...	...
107. Broncho-pneumonia (including Capillary Bronchitis—							
(*a*) Broncho-pneumonia	19	2	...	13	1	35	21·1
(*b*) Capillary Bronchitis	...	...	...	...	...	...	...
108. Lobar pneumonia	93	6	...	32	5	136	26·8
109. Pneumonia (unspecified)	1	...	...	1	...	2	22·0
110. Pleurisy	18	17	...	...	...	35	32·6
111. Congestion, Oedema, Embolism, Haemorrhagic Infarction, and Thrombosis of Lung	...	...	...	...	...	...	...
112. Asthma	3	27	2	2	...	34	30·5
113. Pulmonary Emphysema	...	3	...	...	...	3	41·6
114. Other diseases of the Respiratory System (tuberculous excepted)—							
(*a*) Chronic interstitial pneumonia, including occupational disease	1	...	...	...	1	2	28·0
(*b*) Gangrene of the Lung	...	...	...	...	...	...	...
(*c*) Other Diseases	3	6	...	2	...	11	68·3
Total, Class 8	267	147	8	52	11	485	...

TABLE VII.—Return of the Number of Persons under Treatment, etc.—*continued.*

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
CLASS 9.—DISEASES OF DIGESTIVE SYSTEMS.							
115. Diseases of the Buccal Cavity and Annexa of the Pharynx and Tonsils—							
(*a*) Diseases of the Buccal Cavity and Annexa ...	17	10	1	1	...	29	14·0
(*b*) Diseases of the Pharynx and Tonsils	644	26	2	3	19	694	8·9
116. Diseases of the Oesophagus	2	1	1	...	...	4	19
117. Ulcer of the Stomach or Duodenum—							
(*a*) Ulcer of the Stomach	13	21	3	...	5	42	31·2
(*b*) Ulcer of the Duodenum	10	69	1	5	6	91	32·6
118. Other Diseases of the Stomach (Cancer excepted) ...	21	31	2	1	3	58	18·6
119. Diarrhoea and Enteritis (under 2 years) of age	5	1	...	1	7	...	17·1
120. Diarrhoea and Enteritis (2 years of age and over) ...	4	...	...	1	...	5	15·2
121. Appendicitis	417	23	6	8	19	473	16·6
122. Hernia, Intestinal Obstruction—							
(*a*) Hernia	85	13	9	2	3	112	23·2
(*b*) Intestinal Obstruction	4	2	1	4	...	11	14·2
123. Other Diseases of the Intestines	20	11	5	1	3	40	27·0
124. Cirrhosis of the River—							
(*a*) Alcoholic Cirrhosis	...	2	...	3	...	5	24·0
(*b*) Not specified as Alcoholic	...	...	...	...	...	...	...
125. Other Diseases of Liver—							
(*a*) Acute Yellow Atrophy of the Liver	7	7	1	3	...	18	23·0
(*b*) Other Diseases	...	1	...	1	...	2	38·0
126. Biliary Calculi	40	7	1	2	6	56	34·2
127. Other Diseases of the Gall, Bladder, and of the Biliary Passages	29	33	4	4	1	71	25·0
128. Diseases of the Pancreas....................................	...	2	...	1	1	4	45·0
129. Peritonitis, without specific cause	3	6	1	1	1	12	20·9
Total, Class 9	1,321	266	38	42	67	1,734	...
CLASS 10.—DISEASES OF GENITO-URINARY SYSTEM.							
130. Acute Nephritis	4	1	...	...	...	5	56·4
131. Chronic Nephritis..	2	17	2	21	2	44	30·5
132. Nephritis not specified	...	...	...	...	...	...	...
133. Other Diseases of the Kidneys and Annexa (excluding Diseases of Pregnancy)............................	33	44	6	3	7	93	21·6
134. Calculi of Urinary Passages	9	31	5	1	1	47	16·0
135. Diseases of the Bladder	12	19	2	...	1	34	23·0
136. Diseases of the Urethra, Urinary Abscess	9	17	2	3	1	32	21·3
137. Diseases of the Prostate	9	28	4	4	4	49	38·2
138. Diseases of the Male Genital Organs (not stated as Venereal)	19	3	1	...	2	25	31·5
139. Diseases of the Female Genital Organs (not stated as Venereal)—							
(*a*) Ovary, Fallopian Tubes, and Parametrium ...	86	26	5	2	5	124	23·8
(*b*) Uterus	103	43	14	1	7	168	23·1
(*c*) Breast	5	1	...	...	...	6	41·5
(*d*) Others	42	21	7	1	1	72	29·2
Total, Class 10	333	251	48	36	31	699	...
CLASS 11.—PREGNANCY, LABOUR AND PUERPERAL STATES.							
140. Abortion, with Septic Conditions	2	4	...	11	...	17	28·2
140A. Illegal operation, Criminal Abortion	...	...	...	...	...	...	...
141. Abortion (including Haemorrhage)	687	13	1	...	14	715	8·8
142. Ectopic Gestation	9	1	...	...	1	11	27·2
143. Other Accidents of Pregnancy (excluding Haemorrhage)	9	...	...	...	...	9	30·4
144. Puerperal Haemorrhage	5	...	1	...	...	6	7·6
145. Puerperal Septicaemia, not specified as consequent upon Abortion	...	...	...	...	...	...	...
146. Puerperal Albuminuria and Eclampsia	...	...	...	...	...	...	...
147. Other Toxaemias of Pregnancy	2	...	...	1	...	3	13·4
148. Phlegmasia alba dolens, Embolism, or Sudden death (not specified as Septic)—							
(*a*) Phlegmasia alba dolens and Thrombosis—	...	...	...	...	...	...	...
(*b*) Embolism or Sudden Death	...	...	...	...	...	...	...
149. Other Accidents of Childbirth	2	...	...	...	...	2	27·5
(*a*) Caesarean Section	...	...	...	...	...	...	...
(*b*) Other Surgical Operations and Instrumental Delivery..	...	...	...	...	...	...	...
(*c*) Others	...	...	...	...	...	...	...
150. Other or not specified conditions of the Puerperal state—							
(*a*) Puerperal Diseases of the Breast	...	...	...	...	...	...	...
(*b*) Others	4	1	1	...	...	6	23·7
Total, Class 11	720	19	3	12	15	769	...

TABLE VII.—Return of the Number of Persons under Treatment, etc.—*continued.*

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
CLASS 12.—DISEASES OF THE SKIN AND CELLULAR TISSUE.							
151. Carbuncle	17	4	...	...	...	21	18·5
152. Cellulitis, Acute Abscess	80	20	...	3	1	104	21·2
153. Other Diseases of the Skin and Annexa and the Cellular Tissue	66	46	2	1	19	134	...
Total, Class 12.	163	70	2	4	20	259	...
CLASS 13.—DISEASES OF THE BONES AND ORGANS OF LOCOMOTION.							
154. Osteomyelitis	6	27	3	2	5	43	85·9
155. Other Diseases of the Bones (Tuberculosis and Rheumatism excepted)	7	26	3	1	1	38	41·8
156. Diseases of the Joints and other Organs of Locomotion—							
(*a*) Joints	11	27	3	...	1	42	60·1
(*b*) Amputation	1	...	...	...	...	1	18·0
(*c*) Others	9	5	1	...	6	21	43·4
Total, Class 13	34	85	10	3	13	145	...
CLASS 14.—CONGENITAL MALFORMATION.							
157. Congenital Malformation (Stillbirths excluded)	14	6	4	...	1	25	...
Total, Class 14	14	6	4	...	1	25	...
CLASS 15.—EARLY INFANCY.							
158. Congenital Debility	...	...	...	...	...	...	...
159. Premature Birth	...	...	...	1	...	1	1·0
160. Injury at Birth	...	...	...	...	...	...	...
161. Other Diseases peculiar to Early Infancy—							
(*a*) Atelectasis	...	...	...	...	...	...	...
(*b*) Tetanus Neonatorum	...	...	...	...	...	...	...
(*c*) Diseases of the Umbilicus	...	...	...	...	...	...	...
(*d*) Sclerema and others	2	...	...	...	...	2	8·0
Total, Class 15	2	...	...	1	...	3	...
CLASS 16.—OLD AGE.							
162. Senility	...	1	1	1	...	3	9·0
Total, Class 16	...	1	1	1	...	3	...
CLASS 17.—VIOLENT OR ACCIDENTAL DEATHS.							
Suicide—							
163. Suicide by Solid or Liquid Poisons and corrosive substances—	2	1	...	1	...	4	12·2
(*a*) Non-corrosive substances	...	...	...	...	...	...	...
(*b*) Corrosive substances	1	...	...	...	...	1	1·10
164. Suicide by Poisonous Gas	...	...	...	...	...	...	...
165. Suicide by Hanging or Strangulation	...	...	...	...	...	...	...
166. Suicide by Drowning	...	...	...	...	...	...	...
167. Suicide by Firearms	...	...	...	...	...	...	...
168. Suicide by Cutting or Piercing Instruments	...	...	...	...	...	...	...
169. Suicide by Jumping from a high place	...	...	...	...	...	...	...
170. Suicide by Crushing	...	...	...	...	...	...	...
171. Suicide by other Means	...	...	...	...	...	...	...
Homicide—							
172. Infanticide (Murder of Children under 1 year)	...	...	...	...	...	...	...
173. Homicide of Persons of 1 year and over by firearms	...	1	...	...	...	1	19·0
174. Homicide of Persons of 1 year and over by Cutting or Piercing Instruments	1	...	...	...	...	1	11·0
175. Homicide of Persons of 1 year and over by other means	...	1	...	...	...	1	2·0
Accident—							
176. Attack by Venomous Animals—							
(*a*) Snakebite	2	...	...	...	...	2	2·0
(*b*) Other	...	1	...	...	...	1	25·0
177. Food Poisoning	2	1	...	...	...	3	12·3
178. Accidental Absorption of Poisonous Gas	3	1	1	...	...	5	5·0
179. Other Acute Accidental Poisoning (gas excepted)	...	...	...	...	...	...	...
180. Conflagration	...	...	...	...	...	...	...

Table VII.—Return of the Number of Persons under Treatment, etc.—*continued.*

1935.	Discharged during the year.				Remaining in on 31st December, 1935.	Total.	Average number of days in Hospital.
	Cured.	Relieved.	Un-relieved.	Died.			
Class 17.—Violent or Accidental Deaths—*continued.*							
181. Accidental Burns (Conflagration excepted)	10	4	...	...	3	17	52·7
182. Accidental Mechanical Suffocation	...	...	...	...	...	...	...
183. Accidental Drowning	...	1	...	...	...	1	8·0
184. Accidental Injury by Firearms (wounds of war excepted)	2	...	...	...	...	2	18·0
185. Accidental Injury by Cutting or Piercing Instruments (wounds of war excepted)	8	6	1	...	1	16	7·1
186. Accidental Injury by Falling, Crushing, etc—							
(*a*)	5	1	1	...	...	7	6·7
(*b*)	5	...	...	...	...	5	36·4
(*c*)	5	3	...	...	...	8	43·5
(*d*)	1	...	...	...	...	1	67·0
(*e*)	10	7	...	...	...	17	51·1
(*f*)	1	1	...	...	4	6	11·0
(*g*)	...	...	...	...	...	...	...
(*h*)	...	...	...	...	...	...	...
(*i*)	56	45	1	2	6	110	21·7
(*j*)	2	1	...	...	...	3	17·3
187. Cataclysm (of whatever means)	...	...	...	...	...	...	...
188. Injury by Animals—							
(*a*) Snakebite	1	...	...	...	...	1	15·0
(*b*) Other	3	...	...	...	...	4	25·0
189. Hunger or Thirst	...	...	...	...	...	...	...
190. Excessive Cold	...	...	...	...	...	...	...
191. Excessive Heat	...	...	...	...	...	...	...
192. Lightning	...	...	...	...	...	...	...
193. Accidental Electric Shocks	...	...	...	...	...	...	...
194. Other Accidents—							
(*a*) Inattention at Birth	...	...	...	...	...	...	...
(*b*) Other	1	...	1	...	...	2	48·5
195. Violent Deaths, of which the nature (accident, suicide, homicide) unknown—							
(*a*) Drowning	...	...	...	...	...	...	...
(*b*) Firearms	...	...	...	...	...	...	...
(*c*) Cutting or Piercing Instruments	1	...	...	...	...	1	8·0
(*d*) Fall	1	1	...	...	...	2	9·5
(*e*) Crushing	...	...	...	...	...	...	...
(*f*) Other	...	...	...	...	...	...	...
196. War Wounds	...	...	...	...	...	...	...
197. Execution of Civilians by Belligerent Armies	...	...	...	...	...	...	...
198. Capital Punishment	...	...	...	...	...	...	...
Total, Class 17	124	76	5	3	14	222	...
Class 18.—Causes of Death not Determined.							
199. Sudden Death	...	...	...	...	...	...	...
200. Ill defined or not specified	100	69	16	1	7	231	13·2
(*a*) Ill-defined	...	...	...	...	...	...	...
(*b*) Unspecified	...	...	...	...	...	...	...
Total, Class 18	100	69	16	1	7	231	...
Summary.							
Class 1	2,696	355	47	258	403	3,759	...
„ 2	45	122	64	52	12	295	...
„ 3	39	201	9	24	30	303	...
„ 4	1	23	2	6	5	37	...
„ 5	6	5	2	1	...	14	...
„ 6	90	101	27	18	11	247	...
„ 7	45	156	10	73	16	300	...
„ 8	267	147	8	52	11	485	...
„ 9	1,321	266	38	42	67	1,734	
„ 10	333	251	48	36	31	699	...
„ 11	720	19	3	12	15	769	...
„ 12	163	70	2	4	20	259	...
„ 13	34	85	10	3	13	145	...
„ 14	14	6	4	...	1	25	...
„ 15	2	...	...	1	...	3	...
„ 16	...	1	1	1	...	3	...
„ 17	124	76	5	3	14	222	...
„ *18	100	69	16	1	7	231	*
Grand Total	6,000	1,953	296	587	656	9,530	...

* Includes 38 cases, no disease.

Table VIII.—Operations performed during 1935.

" Recovered " means lived at least ten days after operation.

Operations.	Recovered.		Died.		Total.
	Males.	Females.	Males.	Females.	
Alimentary System.					
Appendicectomy	187	234	2	1	424
Appendiceal Abscess	2	2	...	...	4
Abscess (intra-abdominal drainage)	...	3	...	...	3
Caecopexy	2	1	...	...	3
Caecostomy	...	2	...	...	2
,, closure of	1	1	...	...	2
Cholecystectomy	16	47	...	1	64
Other operations on gall bladder and bile ducts	3	10	...	...	13
Colostomy	1	7	...	...	8
Entero-enterostomy	...	...	...	...	...
Freeing adhesions	1	4	...	...	5
Gastro-enterostomy	17	2	...	2	21
Laparotomy	7	17	3	3	30
Operations for—					
Fistula in ano	6	3	...	...	9
Hernia femorral	3	5	...	...	8
,, incisional	7	6	...	...	13
,, inguinal	60	6	...	...	66
,, ventral	5	5	...	...	10
Hydatid cyst—Liver	...	2	...	...	2
Ischio rectal abscess	5	6	...	...	11
Ruptured peptic ulcer	6	...	...	...	6
Salivary calculus	1	...	...	...	1
Oesophageal diverticulum	2	...	...	...	2
Pancreatic cyst	...	1	...	...	1
Prolapse of rectum	1	...	...	...	1
Alimentary fistula	...	1	...	...	1
Oesophagoscopy	3	4	...	1	8
Oesophagoscopy and Southar's intubation	1	2	...	...	3
Resection of bowel	3	...	...	1	4
Sigmoidoscopy	5	1	...	1	7
	345	372	5	10	732
Genito-urinary System.					
Circumcision	32	...	...	...	32
Cystoscopy	54	55	...	...	109
Cystotomy	4	1	...	...	5
Dilatation of urethra	4	4	...	...	8
Nephrectomy	2	3	...	1	6
Nephro-lithotomy	3	2	...	...	5
Other operations of the kidney	2	1	...	...	3
Operations for—					
Hydrocoele	5	...	...	...	5
Varicocoele	11	...	...	...	11
Vesical calculus	1	...	...	...	1
Urethral calculus	1	...	...	...	1
Orchidectomy	3	...	...	...	3
Perinephric abscess	1	3	1	...	5
Plastic operations—					
Hypospadias	2	...	...	...	2
Closure of sinus	1	...	...	...	1
External urethrotomy	2	...	...	...	2
Prostatectomy	11	...	1	...	12
Prostate, endoscopic resection	6	...	...	...	6
	145	69	2	1	217
Female Genital Organs.					
Colpotomy	...	12	...	1	13
Curettage of uterus	...	740	...	...	740
Colpo-perineorrhaply	...	7	...	...	7
Colporrhaply	...	2	...	1	3
Dilatation of cervix	...	4	...	...	4
External shortening	...	2	...	...	2
Hysterectomy	...	77	...	1	78
Internal shortening	...	17	...	...	17
Oophorectomy	...	9	...	1	10
Operations for—					
Bartholin's cyst	...	5	...	...	5
Ectopic gestation	...	12	...	...	12
Ovarian cyst	...	15	...	...	15
Vesico-vaginal fistula	...	2	...	...	2
Miscellaneous	...	5	...	...	5
Perineorrhaphy	...	21	...	...	21
Salpingectomy	...	13	...	...	13
Salpingo-oophorectomy	...	43	...	...	43
Trachelorrhaphy	...	7	...	...	7
Ventro-suspension	...	...	...	...	...
	...	993	...	4	997

Operations.	Recovered.		Died.		Total.
	Males.	Females.	Males.	Females.	
Cutaneous.					
Avulsion of finger nail	...	5	...	...	5
Cure of ingrowing toe nils	1	1	...	...	2
,, pilonidal sinus	2	...	...	...	2
Excision of scars	...	1	...	...	1
,, cysts	4	2	...	...	6
Incision of abscess	45	42	...	...	87
Lipectomy	...	1	...	...	1
Plastic operations	2	1	...	...	3
Skin graft	1	1	...	...	2
	55	54	...	...	109
Osseus and Arthritic Systems.					
Amputation—					
Leg	7	7	...	...	14
Toe	1	...	...	...	1
Application of plaster	4	1	...	...	5
Arthrodesis	1	1	...	...	2
Arthrotomy	3	1	...	...	4
Craniotomy and elevation of depressed fracture	1	...	...	...	1
Excision of cartilage	1	...	...	...	1
Exploration of hip joint	...	...	1	...	1
Fasciotomy	1	...	...	...	1
Fractures—					
Setting	6	4	...	...	10
Plating, wiring, pinning	3	...	...	...	3
Unplating	...	1	...	...	1
Manipulation of joints	...	3	...	...	3
Operation for—					
Osteomyelitis	2	2	...	...	4
Pedal deformities	3	3	...	...	6
Osteotomy and excision of bone	4	3	...	...	7
Sequestrectomy	10	4	...	...	14
Tenotomy	2	2	...	...	4
Abel's operation, spine	1	...	...	...	1
	50	32	1	...	83
Respiratory System.					
Antrostomy	50	28	...	...	78
Antrum puncture and lavage	8	16	...	...	24
Bronchoscopy	1	...	...	...	1
Currettage or probing of skull sinus	10	4	...	...	14
Frontal sinus operation	1	...	...	...	1
Laryngoscopy	2	...	...	...	2
Nasal polypi removed	12	8	...	...	20
S.M.R. of nasal septum	41	9	...	...	50
Thoracotomy	10	5	1	...	16
Tracheotomy	3	...	...	1	4
Turbinectomy	1	1	...	...	2
Unspecified nasal operations	4	1	...	...	5
	143	72	1	1	217
Circulatory System.					
Haemorrhoidectomy	19	6	...	...	25
Arrest of haemorrhage	3	3	...	...	6
	22	9	...	...	31
Lymphatic and Glandular Systems.					
Adenoidectomy	1	1	...	...	2
Excision of lymphatic glands	7	4	...	...	11
Splenectomy	2	...	...	...	2
Thyroidectomy (partial)	2	2	...	...	4
Tonsillectomy and adenoidectomy	288	382	...	...	670
	300	389	...	...	689

TABLE VIII.—Operations performed during 1935.—*continued.*

"Recovered" means lived at least ten days after operation.

Operations.	Recovered.		Died.		Total.
	Male.	Female.	Male.	Female.	
Cancer and other Tumours—Radium.					
Radium application to—					
Breast	...	3	...	...	3
Cervix uteri	...	25	...	...	25
Glands of neck	4	...	...	...	4
Lip	14	1	...	...	15
Prostate	1	...	...	...	1
Skin	11	5	...	...	16
Thyroid	...	1	...	...	1
Tongue	2	...	...	...	2
Uterus	2	...	...	...	2
Unspecified	16	5	...	...	21
	50	40	...	...	90
Cancer and other Tumours.					
Diathermy to bladder	1	2	...	...	3
Operation for—					
Breast tumour	1	16	...	1	18
Bowel cancer	...	...	...	...	...
Cervical polyp	...	6	...	...	6
Carcinoma unspecified	1	1	...	...	2
Epithelioma	12	4	...	...	16
Fibro-myoma uteri	...	1	...	...	1
Fibroma	...	1	...	...	1
Innocent tumours of skin	6	2	...	...	8
Other innocent tumours	...	5	...	...	5
Lipoma	2	...	...	...	2
Melanoma	3	...	...	...	3
Osteoma	...	1	...	...	1
Penile cancer	1	...	...	...	1
Rodent ulcer	1	1	...	...	2
Stomach cancer	2	1	2	...	5
Thyroid tumour	1	...	...	...	1
Tumours unspecified	1	3	...	...	4
	32	44	2	1	79

Operations.	Recovered.		Died.		Total.
	Male.	Female.	Male.	Female.	
Nervous System.					
Periarterial sympathectomy	1	...	...	...	1
Phrenic nerve crushing	...	1	...	...	1
	1	1	...	...	2
Miscellaneous.					
Ear—					
Paracentesis tympani	44	53	...	...	97
Mastoidostomy	16	22	...	...	38
Removal of polypi	...	1	...	...	1
Eye—					
Cataract	1	1	...	...	2
Chalazion	...	1	...	...	1
Enucleation and evisceration	2	2	...	...	4
Iridectomy	1	2	...	...	3
Pterygium	2	2	...	...	4
Biopsy—					
Skin	1	...	...	...	1
Unspecified	1	2	...	...	3
Foreign body—Removal	3	...	...	...	3
Suture of wound	4	2	...	...	6
Exploration and currettage of wounds and sinuses	8	...	...	...	8
	83	88	...	...	171
Summary.					
Alimentary system	345	372	5	10	732
Genito-urinary system	145	69	2	1	217
Female genital organs system	...	993	...	4	997
Cutaneous	55	54	...	...	109
Osseous and arthritic systems	50	32	1	...	83
Respiratory system	143	72	1	1	217
Circulatory system	22	9	...	...	31
Lymphatic and glandular system	300	389	...	...	689
Cancer and other tumours (radium)	50	40	...	...	90
,, ,, ,,	32	44	2	1	79
Nervous system	1	1	...	...	2
Miscellaneous	83	88	...	...	171
Totals	1,226	2,163	11	17	3,417

1935 *Anaesthetics.*

Open ether, 109; kelene open ether, 2,174; kelene and intra-pharangeal ether, 337; kelene and intra-trachial ether, 119; open kalene, 114; chloroform, 2; evipan sodium, 16; spinal, 22; local (Novocaine, etc.), 190; local kelene, 30. Total, 3,113.

STATEMENT OF WORKING EXPENSES OF THE PRINCE HENRY HOSPITAL FOR THE YEAR 1934–35.

Table IX.—Maintenance and Treatment of Patients and Staff.

	1934.			Average.				1935.			Average.		
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
A. Salaries and Wages—													
1. Administrative	1,784	18	9					1,831	7	7			
2. Medical	3,241	19	8					3,807	2	6			
3. Clerical	2,202	2	10					2,372	13	11			
4. Dispensary	1,046	13	7					1,160	1	2			
5. Nursing	22,508	13	5					20,099	11	8			
9. Laundry	2,839	10	7					2,996	6	6			
10. Tradesmen and Mechanics	3,297	18	5					3,713	18	10			
11. Cleaning and General	16,327	8	1					22,263	8	10			
12. Farm and Garden	355	15	2					802	10	3			
13. X-ray	341	7	4					495	3	10			
	53,996	7	10	78	18	10		59,542	5	1	84	16	7
B. Provisions—													
1. Meat	2,772	1	5					3,315	13	5			
2. Milk	3,351	4	1					3,537	17	10			
3. Butter	1,540	3	9					1,887	0	8			
4. Bread and Flour	1,178	14	1					1,334	18	3			
5. Eggs	1,349	8	2					1,426	14	3			
6. Fish, fresh	366	11	1					425	18	0			
7. Poultry	1,104	14	8					1,303	5	1			
8. Groceries	3,795	7	4					3,610	15	6			
9. Vegetables and Fruit	1,216	16	2					1,746	14	11			
10. Malt Liquors	10	4	0					5	5	0			
11. Ice	101	17	9					96	3	0			
12. Cream	296	5	5					288	12	10			
	17,083	7	11	24	19	6		18,978	18	9	27	0	9
C. Drugs and Surgical Appliances—													
1. Drugs, &c.	10,770	3	5					9,005	7	6			
2. Dressings and Bandages	243	8	3					402	11	7			
3. Surgical Appliances, Renewals	301	9	5					309	14	2			
4. Surgical Instruments, Renewals	1,051	4	3					1,035	10	0			
5. Stimulants	189	15	3					26	10	1			
	12,556	0	9	18	7	2		10,779	13	4	15	7	1
D. Fuel, Light, and Power—													
1. Coal, Coke, and Fuel Oil	3,422	18	3					3,544	5	9			
2. Electricity	1,053	15	1					1,370	7	8			
3. Electrical Fittings, Renewals	15	1	10					183	4	9			
	4,491	15	2	6	11	4		5,097	18	2	7	5	3
E. Domestic—													
1. Bedding and Bed Linen	2,692	1	1					1,837	10	5			
2. Clothing	756	12	11					1,048	5	0			
3. Drapery	351	17	0					296	13	11			
4. Uniforms	208	1	4					258	2	4			
5. Renewals of Furniture	674	15	3					385	19	1			
6. Ironmongery and Cutlery, &c.	164	15	5					71	10	0			
7. Brushware, Earthenware, &c.	382	5	3					271	19	1			
8. Laundry Materials	161	15	0					217	6	4			
	5,392	3	3	7	17	8		4,387	6	2	6	5	0
F. Printing and Stationery—													
1. Printing and Stationery	472	7	6					566	16	7			
2. Postage	159	0	0					159	13	0			
	631	7	6	0	18	5		726	9	7	1	0	8
G. Maintenance of Buildings and Grounds—													
1. Ordinary Repairs and Alterations	1,322	17	0					1,050	11	7			
2. Roadways and Grounds	167	0	10					11	5	3			
	1,489	17	10	2	3	6		1,061	16	10	1	10	3
J. Miscellaneous—													
1. Rates and Taxes	397	0	5					631	12	6			
2. Pathological Laboratory	....							91	2	11			
3. Burials and Coffins	190	9	1					171	0	5			
4. Telephones	749	16	6					391	7	11			
5. Petty Expenses	608	19	11					439	18	3			
6. Unclassified	1,514	3	6					897	19	7			
7. Dental	....							235	15	11			
	3,460	9	5	5	1	2		2,858	17	6	4	1	5
K. Extraordinary Expenditure—													
1. Surgical Instruments	272	16	2					32	8	0			
2. Appliances	1,103	6	7					24	7	6			
3. Machinery	433	1	9					....					
4. New Furniture	2,602	4	5					72	12	8			
5. New Buildings and Additions	....							....					
6. Deep-ray Therapy	....							2,799	18	9			
7. Drapery	....							....					
8. Pathology Department	....							22	17	7			
9. Brushware	....							....					
10. Bedding and Bed Linen	....							....					
11. Special Repairs	....							5	0	0			
	4,411	8	11	6	9	0		2,957	4	6	4	4	3

Table IX.—Maintenance and Treatment of Patients and Staff.—*continued.*

	1934.	Average.		1935.	Average.
L. Special Department—	£ s. d	£ s. d.		£ s. d.	£ s. d.
1. X-Ray	1,008 2 3			1,204 7 11	
	1,088 2 3	1 10 10		1,204 7 11	1 14 3
M. Farm and Garden, Live Stock, etc.—					
1. Purchase of Horses	....			48 0 0	
2. Purchase of Fodder	260 14 6			148 18 6	
3. Miscellaneous	34 0 2			172 11 3	
	294 14 8	1 8 7		369 9 9	0 10 6
N. Auxiliary Hospital—					
1. Salaries and Wages	4,125 11 0			5,006 5 11	
2. Maintenance	5,635 1 2			5,738 5 10	
3. Stores	977 13 2			484 8 2	
	10,738 5 4	15 14 0		11,228 19 11	16 0 0
Total Expenditure	115,634 0 10	169 1 1		119,193 7 6	169 16 4
Add value of goods received from other Institutions	....			7 5 0	
	115,634 0 10			119,200 12 6	
Deduct value of goods supplied to other Institutions	....			....	
	115,634 0 10			119,200 12 6	
Add value of Stock on hand, 31st Dec., 1934	4,567 19 8			6,107 19 8	
	120,202 0 6			125,308 12 2	
Deduct value of Stock on hand, 31st Dec., 1935	6,107 19 8			6,202 13 3	
	114,094 0 10			119,105 18 11	
Deduct Extraordinary Expenditure	4,411 8 11			2,957 4 6	
	109,682 11 11			116,148 14 5	
Average cost per occupied bed, General and Infectious Division, based on upkeep Expenditure	....	160 7 1		....	165 9 6
Deduct Collections paid to Revenue	18,307 0 0			21,917 7 5	
	91,375 11 11			94,231 7 0	
Net cost per occupied bed, General and Infectious Division	....	131 10 10		....	134 5 0

Table X.—Amount expended from the Vote of the Public Works Department not included in the foregoing statistics.

	1934.		1935.	
team and Hot Water Services—	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Repairs—Steam and Hot Water Services	248 5 5	....	231 11 5	....
Repairs and Renewals of Boilers	....	....	....	....
Hot Water Services	29 11 0	....	47 11 10	....
Total	277 16 5	....	279 3 3	....
Mechanical and Electrical Maintenance	1,258 16 0	....	291 19 2	....
Total	1,258 16 0	1,285 16 0	....	571 2 5
General—				
Repairs and Renovations of Buildings	2,091 10 5	....	1,551 4 4	....
Drainage, Sewerage, Roads	6,932 4 1	....	12,647 3 11	....
Repairs and Extensions Water Service	311 11 7	....	91 7 8	....
New Buildings and Additions	107,483 17 10	....	71,684 12 3	....
Renovations, Randwick Auxiliary Hospital	....	....	250 16 5	....
Miscellaneous	....	....	174 4 4	......
Laundry Plant	84 18 6	....	304 10 0	....
X-Ray Apparatus, etc.	1,682 8 3	....	76 2 6	....
Electro Cardiograph	....	....	373 10 0	....
Surgical Instruments	....	....	21 0 0	....
Total	118,586 10 8	118,586 10 8	87,184 11 5	87,174 11 5
Grand Total £	120,123 3 1	120,123 3 1	87,745 13 10	87,745 13 10

TABLE XI.—SUMMARY TABLE, showing the work of the Prince Henry Hospital and its cost each year, from 1891 to 1935.

Year.	No. of Patients admitted.	Average residence of discharged patients in days.	Rate of Mortality on cases treated.	Infectious Diseases included in foregoing columns.																				Average daily number.	Cost per occupied bed.			Wines, spirits, etc., cost per head (included in foregoing columns).		
				Typhoid Fever.		Variola.		Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria.		Influenza.		Plague.		Erysipelas.		Other Epidemic Diseases.								
				Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.		£	s.	d.	£	s.	d.
1891	1,748	40·00	3·23	88	8	...	...	1	...	22	...	25	2	4	...	...	...	...	...	31	...	7	...	193·00	50	2	6	0	5	2¾
1892	1,644	44·06	4·04	61	10	...	...	2	...	39	...	29	2	6	3	...	...	...	...	24	...	16	...	200·03	44	17	11¼	0	7	6½
1893	2,274	32·08	4·05	83	10	...	...	281	8	195	12	7	...	9	3	...	...	...	...	36	...	7	...	193·05	47	8	0	0	10	1
1894	2,158	27·06	4·03	143	12	...	...	7	1	118	9	28	3	9	3	...	...	...	...	36	3	26	...	176·04	55	7	4¼	1	3	6¾
1895	2,451	24·06	3·07	96	6	...	...	1	...	60	...	25	1	45	1	...	...	...	...	51	...	10	...	176·03	59	1	11	1	1	6¾
1896	2,213	31·03	5·04	236	19	...	...	2	...	61	2	3	...	11	1	...	...	...	...	63	...	1	...	204·06	51	6	1¾	1	4	4
1897	2,307	32·06	5·05	128	11	...	...	...	...	235	3	...	...	25	...	...	...	...	...	100	7	6	...	224·04	50	19	2½	1	9	10
1898	2,694	31·04	5·38	163	18	...	...	319	15	350	7	...	...	27	4	...	...	...	...	70	2	...	...	231·00	64	14	10¾	1	14	3¼
1899	2,359	36·30	4·79	148	13	...	...	10	...	134	2	42	10	25	2	...	...	...	...	54	...	8	...	224·25	73	10	11¾	1	13	10
1900	2,513	30·10	5·20	247	25	...	...	29	...	116	2	2	...	7	2	...	...	...	...	33	2	4	...	214·40	72	18	8¼	1	8	2¾
1901	2,688	31·24	5·75	214	21	...	...	131	1	150	5	15	...	65	4	...	...	...	...	49	5	11	...	255·50	59	4	3½	0	16	1½
1902	2,672	30·94	6·29	144	5	...	...	73	...	313	20	26	...	64	5	...	...	128	26	109	8	6	...	256·85	66	9	4¼	0	13	10¼
1903	3,359	31·72	4·67	166	20	...	...	62	1	585	21	13	3	92	...	...	...	2	...	84	6	16	1	300·76	61	17	11¼	0	5	2¾
1904	3,439	30·94	5·17	178	24	...	...	81	1	371	11	40	4	301	11	...	...	10	4	113	5	44	...	305·16	63	2	11¼	0	7	8¼
1905	3,298	31·81	5·20	139	20	...	...	43	1	284	6	1	...	313	10	...	...	16	4	100	6	7	...	289·32	59	12	0¾	0	8	4
1906	2,965	37·63	3·56	84	7	...	...	55	...	503	11	...	...	267	9	...	...	15	4	80	4	3	...	308·67	56	13	1½	0	4	0½
1907	3,051	37·16	5·93	101	12	...	...	157	5	336	5	93	20	389	23	...	...	41	11	58	...	...	...	307·41	58	17	8¼	0	4	5¼
1908	3,147	32·89	5·44	114	13	...	...	17	1	420	10	6	1	360	11	...	...	7	2	62	7	...	...	306·83	61	11	5	0	4	0¾
1909	2,971	31·13	5·53	96	8	...	...	55	...	339	6	4	...	500	12	...	...	22	7	72	3	...	...	295·33	63	5	4½	0	4	1¾
1910	3,538	30·52	5·39	85	7	...	...	189	12	150	6	74	15	909	18	...	...	...	...	40	3	41	...	312·66	62	2	0¾	0	2	5¼
1911	3,474	29·19	5·32	66	8	...	...	70	...	134	...	67	12	974	24	...	...	...	...	48	4	...	...	322·62	64	0	1¼	0	4	0½
1912	4,170	29·54	5·76	67	8	...	...	475	46	108	4	29	5	1284	36	...	...	...	...	73	8	5	...	335·45	77	15	1½	0	4	1¾
1913	3,702	31·83	5·13	77	10	...	...	93	...	287	7	64	14	994	28	...	...	...	...	48	5	22	...	335·51	87	6	6¼	0	3	3¼
1914	4,032	32·35	3·81	73	12	4	...	82	1	628	7	36	4	977	10	...	...	...	...	34	1	20	...	373·11	74	7	5	0	1	0½
1915	4,806	30·09	4·12	123	10	6	...	357	2	1279	19	4	...	925	35	...	...	...	...	42	8	12	3	440·00	69	5	7	0	2	3½
1916	4,618	32·29	3·07	59	8	14	...	206	1	835	22	53	9	1101	32	...	...	...	...	55	1	244	...	447·00	77	4	11	0	4	1¼
1917	4,320	36·49	3·73	16	2	4	...	147	6	498	4	21	4	1328	11	...	...	...	...	79	7	207	...	433·12	94	10	9	0	4	4
1918	4,556	39·60	4·20	31	6	1	...	323	13	314	9	63	8	1251	13	...	...	...	...	92	10	38	...	513·41	98	12	2	0	4	8
1919	5,556	20.67	8.13	25	1	1	...	62	3	213	5	20	1	571	10	2,966	313	...	...	66	2	20	...	385·2	159	0	4	0	8	3
1920	5,945	29·72	7·37	61	5	...	...	581	62	212	1	130	18	904	14	83	...	...	...	86	13	44	...	477·62	159	0	0	0	5	7
1921	6,450	29·3	5·6	49	12	...	...	36	4	174	...	40	4	1360	15	215	16	1	1	102	4	52	...	522·3	156	17	8	0	7	7
1922	6,894	27·54	5·6	33	15	...	...	163	5	229	3	37	2	905	11	118	1	29	6	109	7	514	3	520·16	149	12	4	0	5	8
1923	8,289	34·38	6·37	48	5	...	...	642	35	607	3	32	5	855	13	170	3	...	...	195	12	258	...	563·47	141	10	2	0	13	2
1924	8,171	24·35	5 31	51	4	...	...	85	...	1024	9	39	7	1107	16	158	1	...	...	111	4	79	...	575·29	153	1	1	0	13	0
1925	8,458	23·61	6·41	50	4	...	...	252	11	842	12	89	11	787	3	94	...	...	...	98	4	43	3	578·06	143	9	2	0	11	3
1926	10.175	23·74	5·9	60	4	...	...	701	35	1668	38	46	5	1018	13	251	5	...	...	76	5	62	...	668·09	140	18	7	0	9	10
1927	10,163	27·8	5·6	33	4	...	...	76	1	2183	53	34	5	1997	15	141	1	...	...	109	10	59	2	709·96	151	10	1	0	9	1
1928	10,102	24·5	6·5	15	2	...	...	510	62	1714	44	5	...	1149	18	150	4	...	...	130	5	23	...	737·4	154	0	0	0	7	8
1929	10,454	24·1	6·8	53	3	...	...	199	18	1572	32	79	11	1111	29	208	1	...	...	119	12	100	2	740·00	172	11	10	0	5	3¼
1930	11,001	25·2	6·9	27	3	...	...	566	58	1516	26	30	2	1180	15	62	...	...	...	132	10	55	4	758·00	162	6	10½	0	9	0½
1931	11,069	23·8	6·7	25	2	...	...	93	9	1636	12	62	5	1033	11	155	4	...	...	127	13	35	4	773·00	154	8	6¾	0	9	9
1932	10,467	26·9	6·9	23	1	...	...	86	3	1560	17	1	...	1177	20	82	7	...	...	114	3	51	...	773·00	138	4	5	0	13	2
1933	9,632	26·0	7·01	13	2	...	...	267	14	1380	27	2	...	1212	28	99	...	...	...	85	3	24	1	745·00	130	11	10	0	12	7
1934	9,204	25·4	6·8	8	...	...	...	85	7	674	3	148	32	1530	37	93	2	...	...	74	1	22	...	684·00	160	7	1	0	5	7
1935	8,921	26·9	6·6	5	1	...	...	385	18	975	7	6	...	1207	37	124	4	...	...	94	3	45	...	701·9	165	9	6	0	0	11

2.—LEPER LAZARET.

REPORT ON LEPROSY IN NEW SOUTH WALES FOR THE YEAR ENDED 31st DECEMBER, 1935.

The Medical Superintendent of the Prince Henry Hospital to the Director-General of Public Health.

The Prince Henry Hospital, Sydney, N.S.W.

Sir,

On 1st January, 1935, 17 persons remained under detention at the Lazaret.

During 1935 three persons were reported to the Board under the Public Health Act, 1902, Part III, as being suspected lepers, and after careful inquiry two were duly certified as suffering from leprosy, and admitted to the Lazaret by warrant of the Board.

One death occurred during 1935, viz.:—S.C., case 128; no cases were discharged.

The total number of persons admitted since 1883, when patients first began to be received (though the notification of leprosy was first made compulsory and the detention of lepers provided for by law only towards the end of 1890), is 191. Distributed under nationalities, the account stands as follows at 31st December, 1935:—

	Admitted.	Readmitted.	Discharged.	Repatriated.	Died.	Remaining in at 31 Dec., 1935.
Whites, of European descent—						
New South Wales	51	3	16	......	31	8
Victoria	3	......	......	......	2	1
Queensland	4	......	2	......	2	......
Northern Territory	1	1	2	......	......	......
Western Australia	1	......	......	......	......	1
New Zealand	1	......	......	......	1	......
Fiji	2	......	1	......	1	......
England	13	......	3	......	9	1
Ireland	8	......	2	......	6	......
Scotland	1	......	1	......	......	......
Germany	5	.....	1 absconded.	1	2	1
Belgium	1	.....	......	......	1	......
U.S. America	1	......	......	......	1	......
Greece	2	......	......	1	1	......
Malta	2	......	1 absconded.	......	1	......
Sweden	1	......	......	......	1	......
France	1	......	......	......	1	......
Mauritius	1	......	1	......	......	.....
Italy	1	......	.....	1	......	......
Coloured patients—						
New South Wales	4	......	1	......	1	2
West Indies	1	....	1 (in 1885).	......	......	......
India	4	......	1 absconded.	1	2	.....
China	58	......	2	33	20	3
Java	1	......	......	......	1	......
New Caledonia	1	......	......	......	1	.....
Pacific Islands	18	......	......	6	11	
Egypt	1	......	......	1	......	.....
Zanzibar	1	.....	1 Hong Kong at own request).	......	......	.....
Syria	2	......	1	1	......	......
	191	4	37	45	96	18

Thus the number remaining in the lazaret on 31st December, 1935, was 18 persons; 15 males and 3 females.

Appendix A shows particulars of each case under detention since the year 1912.*

Every opportunity has been offered to members of the medical profession to visit the lazaret for the purpose of seeing such patients as were formerly under their care, or for study of the disease.

The following statements show the expenditure for the year, and the sources from which it has been defrayed:—

STATEMENT showing the Working Expenses of the Lazarets (for men and for women) at Little Bay for the year 1935.

	1935. £ s. d.
Salaries	1,633 17 5
Provisions	562 6 2
Fruit and vegetables	75 9 0
Uniforms, clothing, &c.	88 15 2
Printing, stationery and postage	8 0 0
Fuel and light	130 2 8
Wines, ales, &c.	52 12 6
Ironmongery, brushware, &c.	18 18 4
Drugs, dressings, &c.	113 3 11
Sundries	116 3 11
	£2,799 9 1

Average number of patients resident, 17·81, being equal to an average of £157 3s. 8d. per inmate per annum in 1935.

STATEMENT showing the total Expenditure of the Lazarets (for men and for women) at Little Bay during the year 1935, and from what sources the amounts were paid.

EXPENDITURE.	1935. £ s. d.	HOW PAID.	1935. £ s. d.
To working expenditure, as per statement.	2,799 9 1	From vote—Maintenance of lepers by Department of Public Health	2,088 13 8
		Transfers from the Prince Henry Hospital stock.	710 15 5
Total ....£	2,799 9 1	Total .... £	2,799 9 1

The needs of the patients have been carefully supplied by experienced attendants and nurses, under direct supervision of the Medical Superintendent and the Matron of the Prince Henry Hospital, and, as in the past, every means have been adopted to alleviate their sufferings and to mitigate the hardships of their detention.

I have, &c.,
H. V. D. BARET,
Medical Superintendent.

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* For particulars of cases under detention from 1883 see Annual Reports 1913-1930.

APPENDIX A.

Return showing Particulars of Lepers admitted to Little Bay, New South Wales, since the year 1912.

Name.	Sex.	Native of—	Occupation.	Admission.		Where from.	No. of Case in Clinical Notes.	Died or Discharged.
				Age on.	Date of.			
S.C.	Male	China	Cabinet-maker	40	21 May, 1912	Boolaroo, N.S.W.	128	Died, 15 Sept., 1935.
I. J.T.	,,	N.S.W.	School	12	14 Aug., ,,	Lismore	129	Discharged, 21 July, 1916.
.M.	,,	Mallicolo	Labourer	50	27 ,, ,,	Maclean	130	Died, 23 April, 1919.
J.F.	,,	N.S.W.	Van-driver	28	19 Sept., ,,	Glebe	131	Discharged, 1 Jan., 1920 re-admitted, 7 Nov., 1927; died, 18 Mar., 1930.
W.D.	,,	,,	Fisherman	22	24 June, 1913	Ulladulla, South Coast	132	Discharged, 10 Feb., 1921.
I M.	,,	New Hebrides	Labourer	60	28 Nov., ,,	Tweed River	133	Died, 17 Mar., 1917.
J.C.M.	,,	N.S.W.	Miner	26	28 Jan., 1914	Homeville, W. Maitland	134	Died, 17 June, 1915.
W.B.	,,	England	Dealer	33	4 Mar., ,,	Sydney	135	Died, 14 Aug., 1915.
A.C.P.	,,	N.S.W.	School	15	23 June, ,,	Lismore	136	Discharged, 12 Oct., 1922; re-admitted, 16 Jan., 1925.
E.W.	,,	South Sea Is.	Labourer	50	17 Nov., ,,	Cudgen	137	Discharged, 19 Oct., 1932.
H.H.	,,	England	,,	36	19 May, 1915	Hornsby	138	Died, 7 Jan., 1924.
A.D.	Female	New Hebrides	Domestic	19	1 Sept., ,,	St. Kilda, Victoria	139	Died, 18 July, 1923.
C.F.	Male	China	Cabinet-maker	50	18 Dec., ,,	Waterloo, N.S.W.	140	Discharged, 10 Mar., 1917.
L.F.	,,	England	Showman	45	9 Mar., 1916	Campbelltown	141	Discharged, 2 June, 1917.
F.H.	,,	China	Gardener	45	25 May, ,,	Sydney	142	Died, 15 June, 1916.
D.M.	,,	N.S.W.	Publican	46	25 ,, ,,	Armidale	143	Discharged, 19 May, 1917.
W.J.P.	,,	,,	School	12	25 Nov., ,,	Lismore	144	Discharged, 5 Nov., 1924; re-admitted, 1 July, 1927.
E.L.P.	,,	,,	,,	11	25 ,, ,,	,,	145	Died, 27 Dec., 1922.
E.M.	,,	Germany	....	56	3 April, 1917	Liverpool, N.S.W.	146	Repatriated as Prisoner of War, 27 May, 1919.
C.W.	,,	England	....	80	14 ,, ,,	Sydney	147	Died, 18 Feb., 1923.
C.D.	Female	N.S.W.	Domestic	54	30 Oct., ,,	Casino, N.S.W.	148	Discharged, 12 June, 1920
P.P.	Male	Greece	Cafe-proprietor	33	21 Feb., 1918	Melbourne, Victoria	149	Died, 24 Feb., 1931.
I.C.	,,	Ireland	Miner	84	5 Feb., 1919	....	150	Died, 19 Nov., 1920.
I.T.	Female	Victoria	Housewife	63	25 ,, ,,	Sydney	150A	Died, 1 May, 1919.
.P.	Male	Malta	Labourer	29	18 June, ,,	....	151	Absconded, 14 Sept., 19
.S.	,,	,,	,,	30	22 Dec., ,,	Kempsey	152	Died, 29 July, 1921.
A.S.	,,	China	Gardener	64	3 Aug., 1920	Kandos, N.S.W.	153	Died, 2 Aug., 1923.
.T.P.	,,	,,	Labourer	30	19 Oct., ,,	Nauru Is., S. Pacific	154	Discharged, 25 April, 1921;
.T.D.	,,	N.S.W.	Teamster	32	10 Nov., ,,	Bellingen, N.S.W.	155	Discharged, 1 Dec., 1925. re-admitted, 28 Sept., 1931.
.F.	,,	Ireland	Civil servant	57	20 Dec., ,,	Hobart, Tasmania	156	Discharged, 18 June, 1921.
.W.	Female	Sweden	Seamstress	62	18 Feb., 1921	Newcastle	157	Died, 24 Feb., 1930.
).A.	Male	N.S.W.	Teamster	71	26 May, ,,	Newcastle	90	Died, 16 July, 1921.
.C.	,,	N.S.W.	Fisherman	22	18 Aug., ,,	Tilba Tilba	158	Died 6 Aug., 1934.
.S.	Female	Queensland	Domestic	20	29 Jan., 1922	Redfern	159	Returned to Peel Island, Queensland, 20 Mar., 1922.
.M.B.	Male	France	Labourer	67	7 June, 1922	Hunter's Hill	160	Died, 12 Aug., 1922.
.	,,	Ceylon	Sailor	24	13 Dec., ,,	Not fixed	161	Repatriated, 26 June, 1923.
.B.	,,	N.S.W.	Coach-painter	42	18 June, 1923	Tarce, N.S.W.	95	Died, 5 Aug., 1923.
.E.B.	,,	Northern Terr.	Garage proprietor	35	11 Aug., 1924	Darwin, N.T.	162	Discharged, 16 Sept., 1925. Re-admitted, 7 July, 1933. Discharged, 12 Dec., 1933.
.L.S.	,,	N.S.W.	Invalid pensioner	37	26 Oct., ,,	Liverpool Asylum	163	
.B.	,,	Ireland	Bush worker	61	28 Jan., 1925	Liverpool	164	Died, 24 June, 1931.
.C.	,,	Germany	Importer	45	6 Mar., ,,	Sydney	165	Absconded, 21 Aug., 1925.
.	,,	Hawaii	Musician	...	7 ,, ,,	,,	166	Repatriated, 11 Mar., 1925.
.M.	,,	China	School	12	12 ,, ,,	,,	167	Repatriated, 16 Dec., 1925.
.D.	,,	N.S.W.	,,	7	21 April, ,,	,,	168	Discharged, 1 Dec., 1925.
ong Toe	,,	China	Gardener	46	22 Nov., ,,	Clarence River	169	
I.P.	,,	N.S.W.	Farmer	39	14 Dec., ,,	Queensland	170	Discharged, 9 Sept., 1926.
.T.	,,	Scotland	Chemist	56	8 May. 1926	Sydney	......	Discharged, 21 July, 1926.
.S G	Female	Queensland	Domestic	33	27 April, 1927	Hunter's Hill	171	Died, 29 Jan., 1930.
.R.B.	Male	N.S.W.	Farm labourer	41	6 July, ,,	Croydon	172	Died, 26 Nov., 1928.
.C.	,,	Mauritius	Sugar-worker	47	7 Feb., 1928	Queensland	173	Discharged, 4 July, 1928.
.E.O.	Female	Queensland	Domestic	31	29 Mar., ,,	Northern Territory	174	Discharged, 15 Feb., 1932.
h Hoey	Male	China	Gardener	49	28 May, ,,	Liverpool	175	
.T.I.	,,	N.S.W.	Labourer	17	9 Dec., ,,	Tweed River	176	Died, 15 Dec., 1933.
.L.	,,	,,	,,	47	22 ,, ,,	Macksville	177	
.M.	Female	,,	Domestic	59	14 Sept., 1929	Lismore	178	Discharged, 30 Nov., 1934.
.W.	,,	,,	,,	33	4 Feb., 1930	Sydney	179	Died, 6 Feb., 1930.
.G.J.D.	Male	,,	School	13	4 July, ,,	Lismore	180	
.C.	,,	W. Australia	,,	12	6 Aug., ,,	Sydney	181	
.B.	,,	Italy	Labourer	39	13 Sept., ,,	Queensland	182	Repatriated to Queensland, 15 Jan., 1931.
.M.	Female	N.S.W.	Home-duties	19	1 April, 1931	Adamstown, N.S.W.	183	
.L.	Male	China	Gardener	60	12 Sept., 1931	Kogarah, N.S.W.	184	
.T.	,,	England	Bootmaker	60	29 Jan., 1932	Queensland	185	
.D.	,,	N.S.W.	Engine-driver	53	30 Sept., 1933	Lakemba, N.S.W.	186	
.C.H.L.	,,	Victoria	Student	42	15 April, 1934	Manly	187	
.N.	,,	Germany	Labouror	55	30 Aug., ,,	Rockhampton, Q'land	188	
.E.M.G.	Female	N.S.W.	Domestic	25	11 Oct., ,,	Lawrence, Clarence R.	189	

NOTES.—(*a*) The cases of a few other persons who, for one reason or other, were never admitted to the lazaret, have been mentioned in the course of the series of Reports, and are additional to those shown in this Table. (*b*) On comparison with the reports for early years, differences in ages or dates of admission of some coloured patients will be observed. Those now given are the correct ages and dates. Patients remaining under treatment have their initials shown in *italics*.

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APPENDIX A—*continued.*

RETURN showing admissions, discharges, &c., of Patients suffering from leprosy for the years 1920–1935.

	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
In Lazaret on 1st January	24	24	22	21	16	15	17	15	17	20	20	20	20	19	19	17
Admitted during the year	4	3	3	1	2	8	1	4	5	1	4	3	1	2	1	2
Died during the year	1	2	2	5	2	...	1	2	1	1	4	2	...	1	2	1
Discharged	3	1	2	...	1	4	2	...	1	...	...	...	2	1	1	...
Repatriated	...	2	...	1	...	2	...	...	...	...	...	1	...	...	...	...
Remaining in Lazaret on 31st December — Total	24	22	21	16	15	17	15	17	20	20	20	20	19	19	17	18
Remaining in Lazaret on 31st December — Males	20	17	16	12	11	13	11	14	16	15	17	16	16	16	15	15
Remaining in Lazaret on 31st December — Females	4	5	5	4	4	4	4	3	4	5	3	4	3	3	2	3

Birthplaces of Lepers.—The inmates of the Lazaret at the close of the year 1935 were of the following nationalities:—New South Wales, 8; West Australia, 1; Victoria, 1; Australian Aboriginals, 2; Pacific Islands, 1; China, 3; England, 1; Germany, 1. Total 18.

Working Expenses of Lazaret.—During the year 1935, the total cost of the management of this Institution was £2,799 9s. 1d. Calculated on the average number of inmates, the average cost per inmate per annum was £157 3s. 8d.

3.—DAVID BERRY HOSPITAL.

Berry, New South Wales.

REPORT of the Secretary for the year ended 31st December, 1935.

Administrative Staff.—Visiting Medical Officer, Dr. H. M. Hollingworth; Matron, Miss D. G. Cawood; Secretary, A. F. Hale.

Resident Staff.—Matron, Head Nurse, 2 Staff Nurses, 5 Pupil Nurses; 4 Domestic Staff, and 2 Attendants.

Number of Wards and Beds.—Wards, 6; beds, 22; cots, 4.

General Cases.—Beds, 20; cots, 2. *Infectious Cases.*—Beds, 2; cots, 2.

Sir,

I have the honour to submit herewith the annual report of this hospital for the year 1935:—

Admissions and Discharges.—Remaining in on 1st January, 1935, 11; admitted during 1935, 494; births, 2; discharges, 462; deaths, 31; remaining in on 31st December, 1935, 12.

In-patients.—The total number of in-patients was 507, as against 478 for 1934, a daily average of 21·25 compared with 21 for 1934.

Out-patients.—The number of out-patients attended to was 319, compared with 237 for 1934.

Infectious Cases.—Diphtheria, 13; scarlet fever, 31; measles, 8; poliomyelitis, 1; mumps, 1.

Anaesthetics.—The total number of operations performed was 168—major, 101; minor, 67. Sixty-four visits were made by the Nowra doctors in connection with these operations—Dr. Rodway, 21; Dr. Ryan, 20; Dr. Thompson, 23.

Collections for the year totalled £428 9s. 1d., compared with £399 12s. 9d. for 1934.

The buildings and grounds are in fair order.

A. F. HALE,
Secretary.

4.—STRICKLAND CONVALESCENT HOSPITAL FOR MEN AND WOMEN, "CARRARA," ROSE BAY.

REPORT of the Matron for the year ended 31st December, 1935.

Visiting Medical Officer.—Dr. L. R. Parker.

Staff.—Resident staff at 31st December, 1935—Matron (Miss V. K. Angus); three trained and three pupil nurses; other female staff, six; attendants (male), two.

Admissions and Discharges.—For the year ended 31st December, 1935, the admissions to "Carrara" totalled 1,367 patients, of whom 401 were males and 966 females. Discharges numbered 1,368 (400 males, 968 females), 54 patients (33 males, 21 females) remained in residence on 1st January, 1936. The daily average of occupied beds for the year was 78 (27 males, 51 females). Average annual cost per occupied bed, £58 6s. 3d. Total expenditure for the year, £4,548 9s. 9d.

V. K. ANGUS,
Matron.

At a convalescent hospital patients can be provided with every comfort at less than half the cost required for the upkeep of a general hospital; and under more congenial and happier surroundings than is possible where contact with seriously ill and acutely suffering patients is unavoidable. With the object of aiding in the speedy return to health of patients who are convalescing after serious illnesses and operations, the department has continued to improve the Carrara Convalescent Hospital at Rose Bay, where there is now accommodation for 120 patients (40 men and 80 women). During the year wireless installations were made to both sections of the hospital; the general lighting was improved, and recreation areas for croquet and bowls prepared. A two-storied building was also erected to accommodate the nursing staff.

The extensive grounds extend to a delightfully clean beach; and from every part of the house and grounds there are fine views of the harbour—that to the west, spanned by the Harbour Bridge, being particularly fine.

5.—WATERFALL SANATORIUM.

Annual Report of the Medical Superintendent for the year ended 31st December, 1935.

Honorary Consulting Physicians.—Dr. Cecil Purser and Dr. E. W. Fairfax.

Honorary Radiologist.—Dr. A. T. Nisbet.

Resident Staff.—Medical Superintendent, Dr. H. W. Palmer; Senior Medical Officer, Dr. J. R. Shannon; Junior Medical Officer, Dr. A. L. Waddington; Manager, Mr. R. C. Rowe; Matron, Miss K. Walsh; 1 Sub-matron, 33 Nurses, Clerk and Storekeeper, 1 Junior Clerk, 15 Male Attendants, 5 Cooks and 9 Artisans. A Dentist visits the Sanatorium for a full day each fortnight.

Bed Accommodation.—There are 292 beds for males and 136 beds for females. Total beds, 428.

Number of tuberculous patients dealt with during 1935, 873.

Number of patients remaining in on 1st January, 1935, 338; admitted during 1935, 535. Total under treatment, 873. Patients discharged, 487 (arrested 1, quiescent, 23; much improved, 164; improved, 162; stationary, 35; worse, 20; died, 82). Remaining in residence on 31st December, 1935, 386 (males 252, females 134).

Average number of beds occupied daily, 385.

Total cost of maintenance, £31,947 6s. 4d.

Average annual cost per patient, £82 19s. 7d.

CONDITION on discharge and average residence in days of the 487 tuberculous patients discharged or died during 1935.

Condition on Discharge.	No. of Patients.	Average Residence in days.
Arrested	1	2,141
Quiescent	23	456
Much Improved	164	238
Improved	162	136
Stationary	35	222
Worse	20	393
Died	82	456
Total	487	254

"Arrested": A case where no tubercle bacilli have been found in three successive weekly examinations of the sputum, and where the disease has been quiescent for two years.

"Quiescent": To have no symptoms of tuberculosis and no signs and symptoms of tuberculosis, except such as are compatible with a completely healed lesion.

"Much Improved": Is where the general health is good, and the signs and symptoms of tuberculosis are materially diminished, while working capacity is more or less restored.

This is the scheme for classification of tuberculous patients formulated by the New South Wales Board of Control for the Campaign against Tuberculosis, and adopted by the various organisations.

CONDITION of Patients on Admission and Discharge.

Condition on Admission.	Arrested. and Quiescent.	Much Improved.	Improved.	Stationary.	Worse.	Died.	Total.
L1, T1	4	7	1	...	...	...	12
L2, T1	3	25	23	5	...	4	60
L3, T1	10	73	61	11	8	19	182
L1, T2	...	...	...	...	...	...	...
L2, T2	4	10	5	...	1	...	20
L3, T2	3	44	63	11	8	37	166
L1, T3	...	...	...	...	...	...	...
L2, T3	...	...	1	...	1	1	3
L3, T3	...	5	8	8	2	21	44

L1, signifies disease limited to a part of one lobe of a lung, or slightly to two lobes.
L2, signifies extensive disease limited to one lobe, or moderately to two lobes.
L3, signifies where there is more disease than in L2.
T1, is where toxic symptoms are slight, and where complications, if present, are slight.
T2, is where toxic symptoms are present but not serious, or where complications are not extensive.
T3, is where toxic symptoms or complications are more serious.

This is the classification of tuberculous patients formulated by the Board of Control of the Campaign against Tuberculosis, and adopted by the various organisations.

OCCUPATIONS of Patients Discharged or Died during 1935.

Occupation.	Number.	Occupation.	Number.	Occupation.	Number.
Labourers	97	Housework	26	Farmers	14
Housewives	93	Building trades	25	Seamen	13
Clerks	34	Mechanics	25	Engineers	10
Shop assistants	30	Government Transport	18	Firemen...	10
Indoor trades	30	Cooks	15	Mining (quartz)	10
Factory hands	27	Children	6	,, (coal)	4

Birthplace of Patients Discharged or Died during 1935.

Country.	Number.	Country.	Number.
New South Wales	272	Ireland	17
Other Australian States...	68	New Zealand	12
England	72	Africa	5
Scotland	19	Wales	3
Europe	19		

Table showing the Age Period at which the first symptoms of infection arose, and the number of male and female persons infected in each period, of all patients admitted since 1909. No re-admitted case is included a second time in this table.

Sex.	1 to 9 years.	10 to 15 years.	16 to 19 years.	20 to 29 years.	30 to 39 years.	40 to 49 years.	50 to 59 years.	Over 60 Years.
Male	73	145	351	1,747	1,812	1,597	941	81
Female	74	184	411	1,272	825	385	187	51

Careful enquiry was made in every case to obtain a history of direct infection. Among the 6,747 male patients admitted only 639 or 9.4% gave any history of infection, while among the 3,389 females admitted 558 gave such a history or 16.4%, the percentage of all cases admitted being 11.7%.

Table showing the relative incidence of infection among the different members of the families of patients who give a history of infection.

Member in Family Infected.	Female Patients.		Male Patients.	
	Number.	Per cent.	Number.	Per cent.
Mother	104	18·6	74	11·5
Father	62	11·1	73	11·4
Sister	99	17·7	87	13·6
Brother	53	9·5	160	25·1
Mother and father	13	2·3	18	2·8
Mother, father, brother and sister	11	2·0	14	2·2
Brother and sister	18	3·2	29	4·5
Father and brother	8	1·4	20	3·1
Mother and brother	5	·9	9	1·4
Mother and sister	12	2·1	12	1·8
Father and sister	15	2·6	6	·9
Mother, brother and sister	15	2·6	3	·5
Father, brother and sister	4	·7	2	·3
Husband or wife	51	9·1	61	9·5
Husband or wife, with son	4	·7	8	1·2
Husband or wife, with daughter	11	2·0	4	·6
Daughter	21	3·9	11	1·7
Son	8	1·2	15	2·3
Other infected persons	44	7·8	33	5·1

Table of Yearly Results, 1931 to 1935.

Year.	In Residence beginning of year.	Admitted during year.	Arrested or quiescent.	Much Improved.	Improved.	Stationary.	Worse.	Died.
1931	407	490	21	80	172	21	90	91
1932	414	476	32	60	139	93	57	106
1933	403	481	44	71	157	70	91	99
1934	352	555	50	150	177	83	41	68
1935	338	535	24	164	162	35	20	82

General Review of the Year's Work.

The foregoing tables show the number of patients undergoing treatment during the year 1935, and the condition of those discharged. When one considers how few suitable cases were admitted that the majority of cases admitted are too badly affected to have any chance of recovery, the results may be considered satisfactory.

For some years we have had in New South Wales close co-operation and co-ordination among the many different agencies dealing with tuberculosis, under the control of a definite Board, and with all the benefits available and opportunities for specific and suitable treatment, each year should show improving results. Tuberculosis will never be brought under control until the affected person is discovered before the disease has advanced to any extent, and comes under suitable medical supervision and treatment Tuberculosis is curable if the disease is diagnosed in the early stages of the disease and then properly treated. It is essential therefore that the Medical Profession should do their utmost to recognise tuberculosis in its earliest manifestations, and should be aware of the many aids to diagnosis and treatment that the State possesses. Definite efforts should also be made to educate the general public concerning tuberculosis. Attention should be directed as to the early signs and symptoms of tuberculosis, to the extreme danger of delaying treatment if recovery is to be obtained, and to the facilities that are available at clinics and sanatoria for diagnosis, advice and treatment.

As previously stated, most of the admissions were of the advanced incurable type. Many of these had been under treatment for some years, but only diagnosed as tuberculosis just prior to being admitted. Others, again, had never suspected that they were suffering from tuberculosis, and never had medical attention till a few weeks prior to admission, and yet they were so badly affected that little improvement could be expected.

Although the State possesses many facilities for treatment, and recognises that no progress can be made without a proper classification of the tuberculous patient, provision has not been made to deal with certain types of cases. At the present time Waterfall has to take all the advanced hopeless chronic cases, as well as the dying cases that cannot be accommodated at the Randwick Auxiliary Hospital.

The chronic hopeless tuberculous patient, hopeless because his condition cannot be improved, is generally not sick, does not require sanatorium treatment, has the invalid pension, and only comes into a sanatorium because there he is living under the most favoured conditions. If such cases needed institutional accommodation, a less costly establishment should be provided, and the sanatoria bed would be available for legitimate cases. Such an institution is urgently needed for men.

There is urgent need for extra beds at Randwick Auxiliary Hospital, especially for women, as almost half the women patients now here are bedridden, with little prospects of recovery.

Of the male patients discharged during the year, 10 men, all much improved, were transferred to the Red Cross Home at Exeter, 6 practically quiescent cases were transferred to the Picton Lakes Village Settlement. Of the patients who were unimproved by their stay at Waterfall, 31 were transferred to Randwick Auxiliary Hospital.

Treatment was along ordinary sanatorium lines, though the special needs of each individual case were met. All cases are kept strictly at rest while the disease is active, the large open wards allowing the maximum of fresh air and sunshine. The dietary is varied and liberal, and the menus so arranged that similar meals only occur at long intervals. As the condition of the patients improve, graduated exercises are allowed and when progress is satisfactory light work is provided. As patients near convalescence, and are fitted for heavier work, they can work in their carpentry shop, where motor power is available. For those preferring outdoor work, garden plots are provided, where vegetables can be grown, the Sanatorium buying them at current market prices.

Artificial pneumothorax treatment was applied in thirty-five cases, with satisfactory results, and several haemorrhages were controlled by this means.

Halivol oil in relation with bicalcium phosphate was used in a few selected cases, as was mutton bird oil also, but the majority of patients preferred the different preparations of codliver oil.

Solganal B in oil was used fairly extensively during the year, but the results were disappointing.

During the early half of the year, some thirty patients were specially selected and treated with "Ravetllat-Pla haemo-" antitoxin serum treatment. Control cases were obtained similar in most respects as the cases undergoing treatment, and close progress notes taken. A detailed and full report has already been made, the results being disappointing.

At times during the year there has been some overcrowding, in both men's and women's wards, but it was not found necessary to open the men's ward, which has been closed, though beds had to be placed in use there. To open this ward would have meant the appointment of additional staff, which so far has been obviated.

During the winter great hardship was suffered by some of the very sick patients, who could not be transferred to the Randwick Auxiliary Hospital, owing to shortage of beds available there, the cold here affecting them most detrimentally. A serious outbreak of influenza also affected a number of patients adversely, both the lungs and gastric tract being involved.

Maintenance of Buildings, Improvements, etc.—The only additional building erected during the year was the new biograph room for housing the cinema machine. At the same time the amusement hall was remodelled to conform to the conditions required.

In the Matron's cottage all the lining had to be removed on account of borer, and new lining of fibro cement put in, in its place.

The carpenter's shop was removed to a more convenient position, amd much enlarged, making it more convenient in every way.

The whole water service was put into satisfactory order during the year, the main cast-iron pipes being cement lined, which overcame the rust nuisance, and the smaller branch and reticulation service was replaced by larger pipes. There is now a good service to most of the buildings.

Extra inmate labour having been provided, a beginning was made in painting the exterior of all buildings, and the work has progressed satisfactorily, while all interior painting was kept in good condition.

The entrance gardens and grounds were considerably improved, and the grounds of the Women's Division laid out in a very pleasing and effective manner.

All other essential services have been well maintained.

The milk supply has been very satisfactory, half the supply being obtained from the "Child Welfare" (Berry) farm, this milk being very good, while the other milk comes from Sydney distributing agents, the quality of this milk improving since the milk inquiry was held.

The patients were well supplied with various amusements; concert parties visited the sanatorium on numerous occasions, and there were talkie performances, generally twice a week. Our thanks are due to the film proprietors, the Hon. R. B. Orchard, Esq., O.B.E., Mr. R. Lawson, the Smith Family, and the visiting artists who have made these entertainments so successful.

In addition to these forms of amusements, there are wireless attachments to each bed, good libraries for both men and women patients; billiard tables for both men and women, and other games indoors. For outdoor amusements there is the bowling green for men and croquet for women.

The canteen is controlled by the Patient's Committee, who control most of the amusements, the funds of the canteen helping to defray the cost of amusements.

The dentist has paid regular fortnightly visits to the institution, his time being fully occupied each day.

X-ray work has been considerable, the technician visiting three times a week.

For the greater part of the year each Saturday was occupied in demonstrations of cases to the medical students of Sydney University, who visit the Sanatorium in their final years, in groups, as part of their training in medicine, and spend the whole day at Waterfall.

The number of children admitted during the year was disappointing. Children do very well at Waterfall, and the Education Department has provided special schooling facilities, including a teacher.

As the Commonwealth Government is to take over the control of all tuberculous ex-soldiers, there should be more accommodation available at this Sanatorium, and also at non-departmental sanatoria. This should afford a special opportunity for a State-wide effort to obtain tuberculous patients in the earlier stages of the disease, and to carry out a more thorough system of classification of the different sanatoria and of the patients themselves.

H. W. PALMER,
Medical Superintendent.

6.—LIDCOMBE STATE HOSPITAL AND HOME FOR MEN.

Report of the Medical Superintendent for the year ended 31st December, 1935.

Honorary Medical Staff.—Honorary Staff Surgeon, H. C. Rutherford Darling, M.D., M.S., F.R.C.S.; Honorary Assistant Surgeon, J. A. Lawson, M.B., Ch.M.; Honorary Ear, Nose and Throat Surgeon, N. M. Macindoe, M.B., Ch.M.; Honorary Ophthalmic Surgeons, Falkner J. Blaxland, M.D.; A. E. F. Chaffer, Ch.M.; Honorary Urologist, C. M. Edwards, M.B., Ch.M; Honorary Dermatologist, E. C. Hall, M.B., Ch.M., M.D.; Honorary Radiographer, Colin R. Cole, M.B., Ch.M.

Resident Medical Staff.—Medical Superintendent, R. M. McMaster, D.S.O.; M.B., Ch.M., Senior Medical Officer, J. McManamey, M.B., B.S.; Junior Medical Officers, R. Segal, M.B., B.S.; and S. de Vere Franklin, M.B., Ch.M.; Manager, R. J. Brown, J.P.; Assistant Manager, S. J. Warner, J.P.; Matron, Miss E. M. E. Mance; Sub.-Matron, Miss E. M. Copeman.

Nurses	49	Other Female Staff	2
Attendants	76	Other Male Staff	21

A Dentist visits this institution each week, and an X-ray Technician twice a week.

Number of Wards and Beds.

Hospital Division.		General Division.		Total Accommodation.	Number of Beds.
Ward No.	Number of Beds.	Dormitories.	Number of Beds.		
4	27	9	44		
5	43	12	60		
6	61	21	75		
7	58	22	75		
10	70	23	75		
11	96	24	75		
14	50	25	75	Hospital Division	999
16	61	26	75		
17	61	27	3	General Division	867
18	61	28	22		
19	61	31	64		
20	50	32	64		
27	110	33	64		
28	92	34	27		
29	50	35	25		
Infectious		Emergencies (Casuals)	6		
Division	48	Outside Locations	38		
16	999	...	867	Total	1,866

The foregoing figures represent the total capacity of the various hospital wards and dormitories, and show accommodation for 999 patients and 867 inmates, a total of 1,866.

Admissions and Discharges.—Remaining in on 31st December, 1934, 1,471; hospital division, 907; dormitories, 564; admitted, 1935, 3,203; discharged, 2,514; died, 663; remaining in on 31st December, 1935, 1,497—hospital 916, dormitories, 581.

Average Daily Number of Persons Resident during each of the five years 1931–1935: 1931, 1,563; 1932, 1,556; 1933, 1,539; 1934, 1,516; 1935, 1,562.

Total cost in 1935 of maintenance and treatment of patients and inmates: £73,539 2s. 5d. Average annual cost of patients and inmates, £57 1s. 7d.

Work of Honorary Medical Officers.—The various honorary surgeons and specialists continue to do excellent work. Apart from their valued advice in consultations and diagnoses, the following operations were performed by them during 1935:—Dr. Darling, 43; Dr. Lawson, 49; Dr. Blaxland, 22; Dr. Chaffer, 24; Dr. Macindoe, 32; Dr. Edwards, 39; Dr. Cole, Honorary Radiologist, paid 33 visits; Dr. Hall paid 25 visits.

Dr. Hall, the Honorary Dermatologist, has tendered his resignation, as from the end of the year.

Work of the Staff.—The resident medical staff carried out fifty major and minor operations. The work of the whole staff continues of the same high standard.

X-Ray Department.—This department continues to give excellent service. 1,245 x-rays were taken in 1935.

Massage Department.—The massage department continues to do good work; 93 individual cases received treatment, of whom 39 can be classed as recovered, 23 relieved, 9 unrelieved; 22 patients are still under treatment.

Infectious Division.—This section, containing 48 beds for both sexes of all ages, continues to prove a most useful addition to the available accommodation for infectious diseases in the metropolitan area. It is regretted that owing to a numerically inadequate nursing staff, only 36 of the 48 beds can be utilised.

During the year 346 patients were treated, the great majority of cases being scarlet fever and diphtheria.

Diets.—In addition to the diets provided in accordance with the approved scale, the medical officer's lists have been sufficiently liberal to satisfy the full requirements of all who were unable to partake of the scale allowance. The new kitchen has proved of immense value in the supply of a more valuable dietary, but an additional staff cook is still required to enable this unit to be utilised to the utmost advantage.

Bake-house.—With the closing of Macquarie-street Home, Parramatta, and the transfer of the inmates to this institution, it was necessary to build our own bakery. In addition to supplying bread for consumption by the inmates of this institution, bread is also baked which supplies the entire needs of Newington State Hospital and Home, George-street Home, Parramatta, and Waterfall Sanatorium. From its inception on the 13th January, 1935, to the 31st December, 1935, 932,282 pounds of bread and cake have been produced at an approximate cost of ·907d. per lb.

Billiard Room.—The enlargement of the billiard room and the installation of a new table fully equipped, has been of great benefit to the inmates able to utilise it.

Blind Ward.—This division was opened in February, 1935, to accommodate the blind inmates transferred from Macquarie-street Home, Parramatta. These men are now comfortable and happy in their new surroundings.

We are indebted to the Sydney Blind Institute for their generosity in lending Braille literature to the inmates of this ward.

Laundry.—The installation of a new additional drying chamber has increased the working capacity of the laundry, and has proved very serviceable in wet weather.

Recreation.—We owe to our many friends and to the "Smith Family," a special debt of gratitude for a number of first-class concerts arranged during the year, all of which afforded very great pleasure to the inmates. We also tender grateful thanks to the "Smith Family" for their generous gift of "Christmas Cheer" to the patients and inmates.

The bowling green still retains its interest, both to players and onlookers. During the year several matches were played with outside clubs, and an interchange of visits was made with sister institutions which gave great interest to those participating.

There have been no picture shows provided for the inmates this year, as the silent pictures were discontinued during 1934. The installation of a movie-tone cinema to replace the silent pictures would be welcomed by the inmates.

Radio Installation.—A new wireless instrument has been installed in the Blind Ward, and has been a great source of pleasure to the inmates.

ROAD AND PATH CONSTRUCTION.

A considerable amount of valuable construction work has been done by the Public Works Department in road and footpath making in the institution precincts, and has greatly improved the appearance of the Institution. Completion of the programme of road and path construction will, it is hoped, shortly be an accomplished fact.

A new addition to No. 1 nurses quarters is now under construction, and when completed will provide additional accommodation for the housing of the nursing staff.

OUTDOOR SECTIONS.

Dairy and Farm.—The dairy herd is still maintaining a high standard of efficiency in milk and butter fat production. During the year 93,033 gallons of milk were produced at an average cost of 10·543 pence per gallon. As in previous years our Friesians have again been successful in securing awards at the "Royal" and local shows.

The testing of our milking cows under the Department of Agriculture Herd Improvement Scheme has been of great help in keeping the herd up to the standard of milk production, by the culling out of unprofitable and poor milk-yielding cows. The production of approximately 150 tons of green fodder for the cattle has been of considerable value in assisting in the reduction of the cost of milk.

Gardens and Grounds.—In spite of the shortage of inmate labour an effort has been made to maintain the gardens and grounds efficiently. New garden plots have been added during the year, which have considerably improved the general layout of this Institution.

Piggery.—A regular weekly sale of pigs has been maintained during the year, and an amount of £783 14s. 6d. has been realised from the sale of store pigs. In addition, pork weighing 5,360 lb. has been consumed by the inmates.

Vegetable Garden.—These gardens have been a valuable asset to the institution in the provision of fresh vegetables to the kitchen. During the year vegetables approximating 172,327 lb. were produced for hospital consumption. With the introduction of an additional irrigation scheme, it is hoped to increase the production and economise in the use of the general water supply.

R. M. McMASTER,
Medical Superintendent.

7.—LIVERPOOL STATE HOSPITAL AND HOME FOR MEN.

Report of the Medical Superintendent for the year ended 31st December, 1935.

Honorary Visiting Staff.—Consulting Surgeon, B. T. Edye, F.R.C.S.; Surgeon, I. D. Miller, M.B., F.R.C.S.; Assistant Surgeon, C. H. Swanton, M.B., F.R.C.S. (on leave); Assistant Surgeon, A. L. Webb, M.B., F.R.C.S.; Assistant Surgeon, J. A. Lawson, M.B., Ch.M., F.R.A.C.S.; Anaesthetist, J. Goldman, M.B., Ch.M.; Ear, Nose and Throat Surgeon, H. J. Eizenberg, M.B., BS.; Dermatologist, W. A. McDonald, B.A., M.B., Ch.M.

Staff.—Medical Superintendent, Donald Wallace, M.A., M.B., Ch.M.; Junior Medical Officer, C. R. O'Brien, M.B., Ch.M.; Visiting Medical Officer, J. Pirie, L.R.C.P., L.R.C.S. (Edin.), L.F.P.S. (Glasgow); Manager, J. J. Ranshaw; Matron, L. W. McIntosh.

Constitution of Hospital Staff on 31st December, 1935.—Medical Superintendent, Junior Medical Officer, Visiting Medical Officer, Manager, Matron, Sub-Matron, Nurses 25, Clerks 2, Storekeeper, Dispenser, Male Attendants 18, other Male Staff 10, other Female Staff 1. A Dentist visits the Institution fortnightly.

Number of Wards and Beds.—Hospital Division, 13 wards containing 313 beds (reduced to 11 wards containing 303 beds during the year; General Division, 13 Dormitories containing 558 beds. Total accommodation 871 beds, reduced to 861 beds during year (plus 23 emergency beds.)

Admissions and Discharges for the year ended 31st December, 1935.—In residence 1st January, 1935, 851; admitted during year, 2,372; discharged, 2,085; died, 310; remaining 31st December, 1935, 828; average daily number resident, 838. Total cost of maintenance and treatment of patients and inmates, £36,841 15s. 8d; average cost per inmate, £43 19s. 3d.

Summary of Patients Treated in the various Wards during 1935.

Hospital Section.	In Hospital, 1st January, 1935.	Admitted during year.	Discharged during year.	Died during year.	In Hospital, 31st December, 1935.
Cancer Wards	64	193	109	80	68
General ,,	227	597	461	158	205
Totals	291	790	570	238	273
District Ward	22	460	387	72	23
Grand Totals	313	1,250	957	310	296

Out-patients.—16,009 attendances were recorded during the year, including 3,274 dressings and operations in the district ward.

Hospital Wards.—The general hospital accommodation was fully utilised throughout the year. 225 operations were performed under general anaesthesia, 48 of which could be classed as major operations.

Improvements.—The following works were completed during 1935: New morgue.

Recreation of Inmates.—In addition to the regular entertainments provided by "wireless," concerts have been arranged at frequent intervals by persons interested in the Institution. In this connection special mention should be made of the splendid entertainments provided for the patients and inmates by the "Smith Family" and "Ingleburn Comedy Company."

Farm and Dairy.—The need for green and uncooked vegetables and fresh milk as a corrective of the regulation institutional diet has been kept in view in directing the operations in the vegetable garden and dairy.

D. WALLACE,
Medical Superintendent.

Manager's Review of Outdoor Work for the Year ended 31st December, 1935.

The supply of inmate labour was fairly well maintained throughout the year, and satisfactory progress was made with outdoor work.

Dairy Farm.—34,932 gallons of milk were produced.

Piggery.—Revenue derived from the sale of pigs amounted to £193 10s. 6d.

Farm, Vegetable Garden and Orchard.—These sections yielded 34,959 lb. of vegetable, 7,671 lb. of fruit, and 9 tons of green food in 1935.

Bakery.—The usual high standard of quality was maintained. The total bread consumption was 257,509 lb.; buns, 250 dozen; and cake, 18,900 lb.

Condition of Buildings.—All institution buildings were maintained in a reasonable state of efficiency.

Gardens and Grounds.—The condition of the gardens and grounds has been well maintained throughout the year.

J. J. RANSHAW,
Manager.

8.—NEWINGTON STATE HOSPITAL AND HOME FOR WOMEN.

Annual Report for the year ended 31st December, 1935.

Honorary Medical Staff.—Surgeon, Walter A. Ramsay Sharpe, M.B., F.R.C.S. (Edin.); Neurologist, Andrew Davidson, M.D.; Ophthalmic Surgeon, vacant.

Staff.—Medical Superintendent, Howard K. Denham, B.A., LL.B., M.B., Ch.M.; Visiting Medical Officer, Francis H. Furnival, M.R.C.S. (Eng.), L.S.A. (Lond.); Medical Officer, Lottie Sharfstein, M.B., Ch.M.; Manager, S. T. Creagh; Matron, Emily Wood; Dispenser, 1; Sub-Matron, 1; Clerk, 1; Junior Clerk, 1; Storekeeper, 1; Nurses, 41; other Female Staff, 5; other Male Staff, 13.

A Dentist visits the institution fortnightly.

Dr. F. G. Roberts, the Honorary Ophthalmic Surgeon, resigned, and the vacancy remained unfilled at the end of the year.

Total Admissions and Discharges.—Inmates in the institution on 1st January, 1935, 573; admitted during year, 1,447; discharged, 1,155; died, 303; remaining on 31st December, 1935, 562; average daily number resident, 586. Total expenditure, £27,413 3s. 9d. Average annual cost per bed, £46 15s. 7d.

Hospital Division Statistics.—Beds available, 392. The statistics for the year 1935 are as follow:—In hospital on 1st January, 1935, 309; admitted during year, 1,083; discharged, 779; died, 303; remaining in hospital on 31st December, 1935, 310.

Classification of Cases Discharged.—General diseases, 101; alimentary, 28; circulatory, 319; genito-urinary, 70; osseous and arthritic, 25; nervous, 104; respiratory, 143; skin and glands, 63; wounds and fractures, 26; senility, 176; miscellaneous, 27. Total, 1,082.

REVIEW OF WORK.

The general work of the institution has progressed satisfactorily during the year.

The occurrence of an epidemic of influenza in the winter months necessitated a hospital block of two wards being made available for the reception and treatment of such cases and, during July, August, and September, 78 patients were admitted.

The roadways approaching the institution were put in good and satisfactory condition, and those within the hospital grounds also, with the exception of two sections, were completed.

The completion of the two sections mentioned above has been requested, and it is understood the work will be undertaken at an early date. With this work finished, improvement of the grounds encompassed by the road in the Home area will be put in hand.

Opportunity was taken while work was in progress to renew in copper any water services crossing the roadways.

Renewal of various sections of the water service throughout the grounds was done locally, and the Public Works Department provided a new service to the residence of the Medical Superintendent.

In the early part of the year the Postmaster-General's Department undergrounded the balance of the telephone lines within the institution grounds. The change has proved a distinct improvement, as previously the overhead wires, through contact with trees, were a cause of continual interruption in the service.

The roofs of the verandahs of J Ward, which had been the cause of trouble in wet weather were repaired, but it is doubtful if the repairs will entirely overcome the condition. The roofing is malthoid. A different material was suggested, and the opinion still is that iron would be a more effective covering.

A residence was built for, and occupied by, the Overseer, and the cottage tenanted by the Fireman was re-roofed with tiles.

While painting of buildings by the Institution artisan was carried on during the year, there are a number of the buildings that are sorely in need of attention. The work will require a good deal of scaffolding and would be too dangerous to be undertaken single-handed. The Public Works Department has obtained full details of the work, and it is understood the matter is one awaiting the provision of funds.

Regular entertainments were given during the year by organisations and individual parties, and special functions were provided during the Christmas and New Year season. The thanks of the administration is tendered to all concerned for the entertainments and for the gifts supplied to inmates.

H. K. DENHAM,
Medical Superintendent.

FARM AND DAIRY OPERATIONS.

Notwithstanding the long spell of dry weather the production was satisfactory, as indicated by the returns below:—

Vegetables, 71,285 lb.; fruit, 1,671 lb.; milk, 37,530 gallons; fodder, 89 tons.

It is pleasing to report that the young orchard planted out last year is coming on well, and next year the majority of the trees should be bearing fruit.

A new chaff cutter was installed and is giving satisfactory service.

REVENUE COLLECTIONS.

	£	s.	d.	£	s.	d.
Farm produce	287	11	11			
Other sales	252	0	6			
				539	12	5
Maintenance—						
Collected from sundry persons	1,049	7	9			
Paid through Pension Office	6,171	6	10			
				7,220	14	7
Total				£7,760	7	0

S. J. WARNER,
Manager.

9.—STATE HOME FOR AGED AND INFIRM MEN, GEORGE STREET, PARRAMATTA.

Report for year ended 31st December, 1935.

Staff.

Visiting Medical Officer.—Dr. W. S. Brown.

Officer-in-charge.—G. M. Strange.

Attendants, 5.

Number of beds in hospital, 16; in dormitories, 332; total, 348.

Admissions and Discharges.—Remaining in Home on December 31st, 1934, 186; admitted during 1935, 2,324; discharged, 2,255; deaths, 11; remaining in the Home on December 31st, 1935, 244.

Number in Hospital on 31st December, 1934, 13; admitted during 1935, 188; discharged, 69; died, 11. In hospital on December 31st, 1935, 16. Transferred to other institutions, 105. Number of visits of Visiting Medical Officer, 227.

Inmate workers transferred to other institutions, 702.

Total expenditure, £7,193 1s. 9d.; average daily number resident, 262; Average cost per bed, £27 9s. 1d.

General.—The work of tar-paving a section of the yard and the renewal of a section of water main has been completed by the Public Works Department.

The buildings were maintained in a reasonable state of efficiency by inmate labour.

Recreation and Amusements.—In addition to regular entertainments provided by "Wireless," concerts were arranged by various concert parties during the year, and gave much pleasure to the inmates. Special thanks are again due to the "Smith Family" for the annual distribution of Christmas Cheer.

10.—CLOSURE AND DEMOLITION OF THE STATE HOME FOR THE BLIND, AND MEN OF DEFECTIVE SIGHT AND SENILITY, MACQUARIE STREET, PARRAMATTA.

A picturesque old building connected with the early medical history of New South Wales disappeared with the demolition in July–August, 1935, of the old Macquarie-street Home at Parramatta, which had been in use for asylum purposes from about 1880.

For several years portion of the premises was also used as a bakery, which supplied bread to the two State Homes at Parramatta, the Lidcombe and Newington State Hospitals, and the Sanatorium at Waterfall.

Following upon a report that the premises were too old for reconstruction, an up-to-date bakery was erected at the Lidcombe State Hospital, and baking operations were transferred to that Institution on 10th January, 1935.

Increased ward and dining-room accommodation were also provided at Lidcombe, and the Macquarie-street Home inmates were transferred to their new quarters in February, 1935.

Historical.—The site of the Macquarie-street Home was first used for hospital purposes in 1790, probably being chosen on account of its proximity to fresh running water. The building erected in 1790 was described by Captain Trench "as a most wretched hospital, destitute of every convenience," and consisted of two long thatched sheds built in the form of a tent. In 1799 a tile roof replaced the thatch and in 1820 the original structure was replaced by a two-storied brick building* which was used as a convict barracks until 1843. In August of that year transfer was made of the premises to the "principal officers of Her Majesty's ordinance for use as a military hospital." In October, 1851, a 99-year lease of the property was granted to the New South Wales Government, in which it became reinvested in January, 1900.

There is no consecutive record of the use made of the building from 1851, but for a period it served as a hospital for cases of erysipelas; and from about 1880 it has been used as a Home for old and feeble men with defective sight.

Sale of the building for demolition purposes realised £460 12s. 9d., the bricks (old, undersized sand-stock) being of little value for re-use in building.

It is understood that the site (which is immediately opposite the State school) will be utilised by the Education Department for school extension purposes.

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* Photographs of the building and grounds were published in the Report of the Inspector General of Metropolitan Hospitals and Charities of New South Wales for 1911.

STATISTICAL SUMMARY.

TABLE I.—Summary Statement of Expenditure, State Hospitals and Homes of Lidcombe, Liverpool, and Newington, George Street Home, Parramatta; Waterfall Sanatorium, and Strickland Convalescent Hospital for the year ended 31st December, 1935.

Head of Expenditure.	Lidcombe.	Liverpool.	Newington.	George Street, Parramatta.	Waterfall Sanatorium.	Strickland. Hospital.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Salaries and Payments in the Nature of Salaries	33,681 12 7	12,637 16 11	11,827 10 7	1,786 11 6	12,485 3 6	1,869 3 3	74,287 18 4
Gratuities to Inmates	3,696 9 0	3,253 13 7	2,065 17 9	405 6 2	2,092 17 0	338 8 0	11,852 11 6
Provisions	19,793 2 8	11,346 13 1	6,323 7 7	2,710 6 11	10,320 10 7	1,699 10 8	52,193 11 6
Drugs, Dressings, Surgical Appliances, etc.	2,159 6 5	1,160 10 7	716 8 5	11 0 9	389 7 4	4 19 1	4,441 12 7
Fuel and Lighting	2,869 12 6	2,270 5 7	1,342 2 10	234 15 9	2,135 7 3	257 19 10	9,110 3 9
Forage	3,271 12 5	1,596 6 1	1,836 15 6	13 1 10	167 8 6	......	6,885 4 4
Materials for Minor Repairs, Additions and Renewals to Buildings and Plant	1,086 5 3	777 16 7	521 11 1	68 11 9	963 4 11	105 12 4	3,523 1 11
Transport Expenditure, including Freight and Cartage	1,559 0 3	684 16 3	598 3 8	225 14 1	1,477 4 6	23 4 2	4,568 2 11
Clothing and Drapery	4,790 16 7	2,548 17 7	1,822 6 6	721 1 5	963 18 2	54 11 10	10,901 12 1
Hardware, Ironmongery and General Stores	895 5 4	722 0 11	299 18 0	152 10 5	376 4 6	82 14 10	2,528 14 0
Furniture	60 1 9	232 19 6	10 14 0	......	......	59 15 6	363 10 9
Office Expenses, Telephones, Stationery and Printing	477 9 8	212 7 9	261 7 4	49 9 3	208 19 8	53 9 7	1,263 3 3
Livestock and Farm and Garden Requisites	117 5 5	91 3 9	165 2 8	1 16 1	57 6 3	2 1 11	434 16 1
Miscellaneous	446 6 6	228 0 6	219 5 9	39 14 4	229 16 4	17 15 11	1,180 19 4
	74,904 6 4	37,763 8 8	28,010 11 8	6,420 0 3	31,867 8 6	4,569 6 11	183,535 2 4
Add Exchange	731 9 6	321 0 9	1,052 3 11	889 5 11	613 8 4	2 3 3	3,609 11 8
	75,635 15 10	38,084 9 5	29,062 15 7	7,309 6 2	32,480 16 10	4,571 10 2	187,144 14 0
Deduct Exchange	2,103 8 5	52 14 4	1,125 8 5	37 0 9	17 16 9	0 4 0	3,336 12 8
Total	73,532 7 5	38,031 15 1	27,937 7 2	7,272 5 5	32,463 0 1	4,571 6 2	183,808 1 4
Stock on hand 31st December, 1934	7,408 10 4	3,658 7 0	3,288 9 0	836 3 2	2,046 14 5	357 2 11	17,595 6 10
Grand Total	80,940 17 9	41,690 2 1	31,225 16 2	8,108 8 7	34,509 14 6	4,928 9 1	201,403 8 2
Deduct—							
Stock on hand 31st December, 1935	6,010 5 5	4,389 16 10	3,273 0 0	846 9 11	2,006 6 6	379 14 10	16,905 13 6
Proceeds of Sales, etc.	1,391 9 11	458 9 7	539 12 5	68 16 11	556 1 8	0 4 6	3,014 15 0
Total Deductions	7,401 15 4	4,848 6 5	3,812 12 5	915 6 10	2,562 8 2	379 19 4	19,920 8 6
Total Cost	73,539 2 5	36,841 15 8	27,413 3 9	7,193 1 9	31,947 6 4	4,548 9 9	181,482 19 8
Average daily population	1,562	838	586	262	*507	† 98	3,853
Average annual cost per inmate	47 1 7	43 19 3	46 15 7	27 9 1	63 0 3	46 8 3	45 15 8
Annual contributions towards maintenance	15,604 2 6	6,089 12 6	7,220 14 7	486 11 2	3,358 17 8	160 3 8	32,920 2 1

* Patients, 385 (£82 19s. 7d.) or plus inmate workers, 122 (£63 0s. 3d.).   † Patients 78 (£58 6s. 3d.) or plus inmate workers 20 (£46 8s. 3d.)

Section IV.

Report of the Principal Microbiologist for the year ended 31st December, 1935.

Staff.

Principal Microbiologist.—Ernest Leslie Morgan, M.B., Ch.M.

Assistant Microbiologists.—Elsie J. Dalyell, M.B.; Stanley M. King, L.R.C.S., M.R.C.P.; Isobel M. Brown, M.B., B.S. (resigned September, 1935); Karen Helms, M.B., Ch.M.; K. H. Grieve, M.B.

Senior Laboratory Assistant.——John O. Sergeant, 1st and 2nd laboratory assistants, and 8 assistants. Attendants, 4.

Clerical.—Shorthand-writer and typist, 1; temporary office assistant, 1; messenger, 1.

Sir,

I have the honour to submit the following summarised report dealing with the work performed in the Microbiological Laboratory during 1935.

The amount of revenue collected from examinations, sale of sera, etc., was £491 14s. 3d.

The volume of work for the year as represented by the number of specimens examined is set out below:—

	1934.	1935.
General laboratory examinations	79,226	77,108
Examination of rats for plague	3,758	3,644
	82,984	80,752

Diphtheria.—The epidemic of diphtheria prevalent in 1934 continued in 1935, when 11,859 swabbings were examined, as compared with 14,425 in 1934. This decrease in the number of swabbings examined practically accounts for the whole of the decrease in the total number of specimens submitted.

The number of tests for toxicity increased from 191 in 1934 to 314 in 1935.

The demand for media for throat swabbings was so great that in many cases requests could not be fully met. It may shortly be necessary to increase the staff employed in the preparation of media.

Typhoid Fever.—The continued freedom of the State from a serious outbreak of typhoid fever was reflected in the number of examinations for this disease. It still remains low.

Gonorrhoea.—There has been a slight increase in the number of smears examined for gonococci, due to the expansion of the venereal diseases clinic for men. The decrease in the complement deviation tests for gonorrhoea is due to the fact that seriological work is so heavy that certain limitations in the number of specimens have had to be imposed.

Malaria.—Examinations were made of twenty-four slides for malaria, and of these four were positive In each case the infection was acquired outside the State.

Anthrax.—During the year four shaving brushes of suspected types were examined, but in no instance was *B. anthracis* recovered. Cultures of pus were also examined from a human being, but proved negative.

Haematology and Histology.—Slight increases are again shown in haematology and histology.

Serology.—The number of serological tests shows a slight decrease. As mentioned in the gonorrhoea section, this decrease is entirely due to the limitations placed on the number of complement deviation tests carried out for the Venereal Diseases Division.

Milk Samples Submitted by the Milk Board.—There was a considerable increase in the number of examinations made during 1935 as compared with 1934. This increase occurred both in samples examined for *Tubercle bacilli* and *B. abortus* (509 in 1935 and 251 in 1934), and in the samples submitted for bacterial count (668 in 1935 and 321 in 1934).

Of the 509 samples examined for *Tubercle bacilli* five (·98 per cent.) were positive. Seventy-five (14·73 per cent.) of these samples showed the presence of *B. abortus.*

Overcrowded Condition of the Laboratory.—During the year the vacation of the building by the Head Office Clerical and Administrative Staffs resulted in four extra rooms being placed at the disposal of the Microbiological Laboratory. This has only afforded slight relief from the overcrowded conditions. There is still no provision for a wash-room or lunch-room for the staff.

E. L. MORGAN.

Table showing the Routine Examinations made for the Various Branches of the State Department of Public Health, other Government Departments, Subsidised Hospitals, etc.

	Number of Examinations. Comparative Statement.	
	1934.	1935.
Department of Public Health—		
Head Office Submissions	15,958	15,601
Prince Henry (formerly Coast) Hospital	5,216	4,073
David Berry Hospital, Berry	49	109
Lady Edeline Hospital for Babies	14	......
Lidcombe State Hospital and Home	4,951	5,169
Liverpool State Hospital and Home	719	464
Newington State Hospital and Home	589	431
Waterfall Sanatorium	47	5
Medical Officer of Health, Metropolitan District	......	56
,, ,, ,, Hunter River District	......	79
Commonwealth Government	86	106
State Departments—		
Agriculture and Stock Department	1	......
Education Department	108	134
Child Welfare	......	3
Government Stores Department	......	37
Milk Board	566	1,177
Police Department	45	48
Prisons Department (Long Bay Gaol, etc.)	255	481
Public Works Department	29	101
Railways and Tramways Department	2	6
State Insurance Office	1	2
Water Conservation Commission	5	......
Private Practitioners	21,065	18,859
Public Hospitals and Institutions other than State Hospitals	29,476	30,040
Municipal and Shire Councils	44	127
	79,226	77,108
Total Examinations—		
General	79,226	77,108
Rats for Plague	3,758	3,644
Total	82,984	80,752

In the following Statement the Routine Work is divided into sections to disclose the purposes for which the various examinations were made.

	Number of Examinations. (Comparative Statement.)	
	1934.	1935.
A.—*Microbiological Examinations.*		
1. Of materials from diseased persons and animals—		
Actinomycosis	10	6
Bilharzia	1	1
Brucella abortus	12	6
Diphtheria (swabbings)	14,425	11,859
,, (toxicity)	191	354
Dysentery	14	19
Gonorrhœa (smears and urine)	12,785	13,726
,, (complement deviation test)	5,294	3,421
Hæmolytic streptococci	67	76
Hydatids (sputa, smears, etc.)	16	20
,, (complement deviation test)	74	55
Leprosy (human)	4	5
Malaria	11	24
Mastitis (bovine)	2	......
Meningitis	121	109
Syphilis (Wassermann reactions)	16,020	16,017
,, (Kahn's flocculation test)	14,069	15,401
,, (spirochætes)	85	98
Tetanus	3	6
Tinea	16	19
Tuberculosis	3,896	3,289
Typhoid (Widal reactions)	310	284
,, (urine, fæces)	211	483
,, (miscellaneous, water, milk, etc.)	8	19
Unclassified : " No growths " from pus, etc.	1,393	1,281
Typhus	9	6
Vincent's Angina	52	108
	69,099	66,692

Division of Routine Work, etc.—*continued.*

	Number of Examinations. (Comparative Statement.)			
	1934.		1935.	
Brought forward		69,099		66,692
A.—*Microbiological Examinations*—continued.				
2. Examinations for Anthrax—				
Human beings	2		1	
Shaving brushes, etc.	14		4	
		16		5
3. Of Materials, etc.—				
Chemical closet contents	10		7	
Disinfectants	29		44	
Feathers	......		9	
Sewage, effluents, etc.	......		2	
Soil	2		5	
Water	60		182	
Water from swimming baths	244		87	
		345		336
4. Examination of Foods for Bacterial Contamination—				
Condensed Milk	4		......	
Milk—				
Milk samples submitted by the Milk Board for examination for tubercle bacilli and B. abortus	251		509	
Milk samples for bacteriological count submitted by the Milk Board	321		668	
Miscellaneous milks for bacterial counts, etc.	16		8	
		592		1,185
5. Examinations for Food Poisoning	4		4	
		4		4
B.—*Pathological Examinations.*				
1. Of Animals—				
Mammals	4		3	
Fish	......		......	
		4		3
2. Of Body Fluids—				
Blood for full and differential count	1,131		1,213	
,, ,, blood typing	1		1	
,, —coagulation time	10		9	
Chemical Examinations—				
Blood for sugar	327		234	
,, ,, ,, tolerance	59		55	
,, ,, urea	1,271		1,018	
,, ,, ,, creatinin	33		16	
Urine for sugar (quantitative)	46		34	
,, ,, urea	886		477	
Test meal specimens	530		1,085	
Calculus	6		12	
Miscellaneous	451		322	
Fæces	59		89	
Urine (general examinations)	1,367		1,358	
		6,177		5,923
3. Of Tissues—				
Malignant tumours	568		583	
Tubercular	27		29	
Other conditions	1,469		1,466	
		2,064		2,078
C.—*Examination of Parasites.*				
Ecto-parasites (fleas, ticks, etc.)	1		......	
Endo-parasites (round and flat worms)	25		13	
Protozoa	6		13	
Insects (including flies and mosquitoes) & spiders	4		2	
		36		28
D.—*Medico-Legal Examinations.*				
Examination of Exhibits for—				
Blood stains	7		15	
Gonococci	12		5	
Seminal stains	39		31	
Spermatozoa	28		20	
Other examinations	......		2	
Poison tests	......		......	
		86		73
E.—*Examination of Specimens for Preparation of Vaccines.*				
Preparation of Autogenous Vaccines from sputa, urine acne pustules, boils, wounds and other septic conditions	803		781	781
		803		
Total		79,226		77,108

ROUTINE EXAMINATION OF RATS FOR THE PRESENCE OF PLAGUE.

Table showing the Number and Species of Rodents Examined in Sydney and Newcastle each month during the year ended 31st December, 1935.

Month.	Sydney.				Newcastle.			
	R.R. Rattus.	*Rattus Norvegicus.*	*M. Musculus.*	Total.	*R.R. Rattus.*	*Rattus Norvegicus.*	*M. Musculus.*	Total.
January	286	60	52	398	16	8	...	24
February	123	24	13	160	6	13	...	19
March...............	191	59	63	313	23	19	2	44
April	173	24	16	213	...	...	...	...
May	132	79	23	234	3	...	2	5
June	146	62	32	240	5	7	...	12
July	213	101	124	438	16	2	5	23
August	340	97	74	511	4	2	...	6
September	203	121	59	383	10	...	...	10
October	210	74	27	311	8	1	...	9
November	137	118	21	276	13	5	...	18
December	106	32	29	167	14	8	2	24
Total	2,260	851	533	3,644	118	65	11	194

[6 graphs.]

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